

Accepted Manuscript

Exploring the genomic diversity of black yeasts and relatives (*Chaetothyriales*, *Ascomycota*)

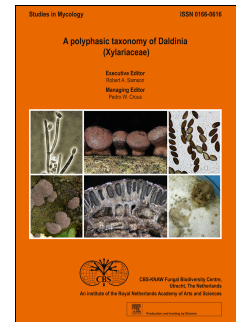
M.M. Teixeira, L.F. Moreno, B.J. Stielow, A. Muszewska, M. Hainaut, L. Gonzaga, A. Abouelleil, J.S.L. Patané, M. Priest, R. Souza, S. Young, K.S. Ferreira, Q. Zeng, M.M.L. da Cunha, A. Gladki, B. Barker, V.A. Vicente, E.M. de Souza, S. Almeida, B. Henrissat, A.T.R. Vasconcelos, S. Deng, H. Voglmayr, T.A.A. Moussa, A. Gorbushina, M.S.S. Felipe, C.A. Cuomo, G. Sybren de Hoog

PII: S0166-0616(17)30016-7

DOI: [10.1016/j.simyco.2017.01.001](https://doi.org/10.1016/j.simyco.2017.01.001)

Reference: SIMYCO 43

To appear in: *Studies in Mycology*



Please cite this article as: Teixeira MM, Moreno LF, Stielow BJ, Muszewska A, Hainaut M, Gonzaga L, Abouelleil A, Patané JSL, Priest M, Souza R, Young S, Ferreira KS, Zeng Q, da Cunha MML, Gladki A, Barker B, Vicente VA, de Souza EM, Almeida S, Henrissat B, Vasconcelos ATR, Deng S, Voglmayr H, Moussa TAA, Gorbushina A, Felipe MSS, Cuomo CA, Sybren de Hoog G, Exploring the genomic diversity of black yeasts and relatives (*Chaetothyriales*, *Ascomycota*), *Studies in Mycology* (2017), doi: 10.1016/j.simyco.2017.01.001.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Manus-Black-Genomics-Total 23-11-2016

Studies in Mycology

Exploring the genomic diversity of black yeasts and relatives (*Chaetothyriales*, *Ascomycota*)

M.M. Teixeira^{1,2,§}, L.F. Moreno^{3,11,14,§}, B.J. Stielow³, A. Muszewska⁴, M. Hainaut⁵, L. Gonzaga⁶, A. Abouelleil⁷, J.S.L. Patané⁸, M. Priest⁷, R. Souza⁶, S. Young⁷, K.S. Ferreira⁹, Q. Zeng⁷, M.M.L. da Cunha¹⁰, A. Gladki⁴, B. Barker¹, V.A. Vicente¹¹, E.M. de Souza¹², S. Almeida¹³, B. Henrissat⁵, A.T.R. Vasconcelos⁶, S. Deng¹⁵, H. Voglmayr¹⁶, T.A.A. Moussa¹⁸, A. Gorbushina²⁰, M.S.S. Felipe², C.A. Cuomo^{7,*}, and G. Sybren de Hoog^{3,11,14,17*}

¹Division of Pathogen Genomics, Translational Genomics Research Institute (TGen), Flagstaff, AZ, USA; ²Department of Cell Biology, University of Brasília, Brasília, Brazil; ³CBS-KNAW Fungal Biodiversity Centre, Utrecht, The Netherlands; ⁴Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland; ⁵Université Aix-Marseille (CNRS), Marseille, France; ⁶The National Laboratory for Scientific Computing (LNCC), Petropolis, Brazil; ⁷Broad Institute of MIT and Harvard, Cambridge, USA; ⁸Department of Biochemistry, University of São Paulo, Brazil; ⁹Department of Biological Sciences, Federal University of São Paulo, Diadema, SP, Brazil; ¹⁰Núcleo Multidisciplinar de Pesquisa em Biologia UFRJ-Xerém-NUMPEX-BIO, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil; ¹¹Department of Basic Pathology, Federal University of Paraná State, Curitiba, PR, Brazil; ¹²Department of Biochemistry and Molecular Biology, Federal University of Paraná, Curitiba, PR, Brazil; ¹³Department of Clinical and Toxicological Analysis, University of São Paulo, São Paulo, SP, Brazil; ¹⁴Institute of Biodiversity and Ecosystem Dynamics, University of Amsterdam, Amsterdam, The Netherlands; ¹⁵Shanghai Institute of Medical Mycology, Changzheng Hospital, Second Military Medical University, Shanghai, China; ¹⁶Department of Systematic and Evolutionary Botany, University of Vienna, Vienna, Austria; ¹⁷Biological Sciences Department, Faculty of Science, King Abdulaziz University, Jeddah, Saudi Arabia; ¹⁸Biological Sciences Department, Faculty of Science, University of Jeddah, Jeddah, Saudi Arabia and Botany and Microbiology Department; ¹⁹Faculty of Science, Cairo University, Giza, Egypt; ²⁰Federal Institute for Material Research and Testing (BAM), Berlin, Germany

[§]These authors contributed equally to the manuscript

*Correspondence: Christina A. Cuomo, cuomo@broadinstitute.org; Sybren de Hoog, s.hoog@cbs.knaw.nl

Running Head: Comparative genomics of *Chaetothyriales*

Abstract: The order *Chaetothyriales* (*Pezizomycotina*, *Ascomycetes*) harbours obligatorily melanised fungi and includes numerous etiologic agents of chromoblastomycosis, phaeoerythromycosis and other diseases of vertebrate hosts. Diseases range from mild cutaneous to fatal cerebral or disseminated infections and affect humans and cold-blooded animals globally. In addition, *Chaetothyriales* comprise species with aquatic, rock-inhabiting, ant-associated, and mycoparasitic life-styles, as well as species that tolerate toxic compounds, suggesting a high degree of versatile extremotolerance. To understand their biology and divergent niche occupation, we sequenced and annotated a set of 23 genomes of main the human opportunists within the *Chaetothyriales* as well as related environmental species. Our analyses included fungi with diverse life-styles, namely opportunistic pathogens and closely related saprobes, to identify genomic adaptations related to pathogenesis. Furthermore, ecological preferences of *Chaetothyriales* were analysed, in conjunction with the order-level phylogeny based on conserved ribosomal genes. General characteristics, phylogenomic relationships, transposable elements, sex-related genes, protein family evolution, genes related to protein degradation (MEROPS), carbohydrate-active enzymes (CAZymes), melanin synthesis and secondary metabolism were investigated and compared between species. Genome assemblies varied from 25.81 Mb (*Capronia coronata*) to 43.03 Mb (*Cladophialophora immunda*). The bantiana-clade contained the highest number of predicted genes (12,817 on average) as well as larger genomes. We found a low content of mobile elements, with DNA transposons from Tc1/Mariner superfamily being the most abundant across analysed species. Additionally, we identified a reduction of carbohydrate degrading enzymes, specifically many of the Glycosyl Hydrolase (GH) class, while most of the Pectin Lyase (PL) genes were lost in etiologic agents of chromoblastomycosis and phaeoerythromycosis. An expansion was found in protein degrading peptidase enzyme families S12 (serine-type D-Ala-D-Ala carboxypeptidases) and M38 (isoaspartyl dipeptidases). Based on genomic information, a wide range of abilities of melanin biosynthesis was revealed; genes related to metabolically distinct DHN, DOPA and pyomelanin pathways were identified. The *MAT* (*M*ating *T*ype) locus and other sex-related genes were recognized in all 23 black fungi. Members of the asexual genera *Fonsecaea* and *Cladophialophora* appear to be heterothallic with a single copy of either *MAT-1-1* or *MAT-1-2* in each individual. All *Capronia* species are homothallic as both *MAT1-1* and *MAT 1-2* genes were found in each single genome. The genomic synteny of the *MAT*-locus flanking genes (*SLA2-APN2-COX13*) is not conserved in black fungi as is commonly observed in *Eurotiomycetes*, indicating a unique genomic context for *MAT* in those species. The heterokaryon (*het*) genes expansion associated with the low selective pressure at the *MAT*-locus suggests that a parasexual cycle may play an important role in generating diversity among those fungi.

Key words: Black yeast, Comparative Genomics, *Chaetothyriales*, Ecology, Evolution, *Herpotrichiellaceae*, Phylogeny.

INTRODUCTION

The order *Chaetothyriales* (*Pezizomycotina*, *Ascomycetes*) harbours melanised, non-lichenised fungi with a large morphological diversity. The order is included in the subclass *Chaetothyriomycetidae* along with the lichenised orders *Verrucariales*,

Pyrenulales, and *Celotheliales*. Within the *Chaetothyriales*, at least five families are recognized: *Chaetothyriaceae*, *Cyphellophoraceae*, *Epibryaceae*, *Herpotrichiellaceae*, and *Trichomeriaceae* (Batista & Ciferri 1962; Réblová *et al.* 2013), while some clades are as yet unassigned. The members of *Chaetothyriales* exhibit a complex ecological variation, and species are found in habitats characterised by extreme and adverse conditions, e.g. on rock surfaces in hot, arid climates, in toxic niches with hydrocarbons and heavy metals, and remarkably often occur in vertebrates as opportunistic pathogens (de Hoog 2014). Some species cause mutilating or even fatal infectious diseases, often in apparently healthy individuals. Recent studies sequenced rDNA from a large number of undescribed melanised fungi from ant colonies that clustered in various families of *Chaetothyriales* (Voglmayr *et al.* 2011, Nepel *et al.* 2014). The asexual morphs of members of *Chaetothyriales* show large morphological diversity, whereas the sexual morph shows limited variation over the entire order. Some genera produce budding cells or are entirely yeast-like, and hence the order is often referred to as “black yeasts and relatives” (BY) (Fig. 1).

The family ***Chaetothyriaceae*** contains species that generally are epiphytes, growing on the surface of plant leaves, but it is still unclear whether those species are plant pathogens or symbionts. The mycelium resides on the surface of plant leaves without truly penetrating the host plant cuticle (Chomnunti *et al.* 2012b). Members of this family are mainly distributed in tropical regions and are characterised by producing a sooty melanised mycelium resembling a loose network of hyphae covering the substrate. Ascomata are formed below the mycelial web and are easily released from the plant cuticle. Asexual *Chaetothyriaceae* are only reported for genera *Chaetothyrium* (*Merismella*) and *Ceramothyrium* (*Stanhughesia*) (Hyde *et al.* 2011).

The family ***Herpotrichiellaceae*** harbours a vast diversity of polyphyletic asexual morphs, which include both saprobic species on plant debris and clinically important species (Fig. 1) (Untereiner & Naveau 1998). Among the latter are causative agents of chromoblastomycosis, phaeohyphomycosis, disseminated infections, and primary cerebritis (McGinnis 1983, Garnica *et al.* 2009). Main asexual genera are *Cladophialophora*, *Exophiala*, *Fonsecaea*, *Phialophora*, and *Rhinocladiella*, which all include opportunistic pathogens that cause a wide array of clinical syndromes in cold- and warm-blooded vertebrates (Crous *et al.* 2007, Seyedmousavi *et al.* 2013). Most species reproduce asexually with conidia generated by a filamentous phase, while members of the genus *Exophiala* show yeast-like budding. Occasionally meristematic growth is observed (Fig. 1) (de Hoog *et al.* 2011). Muriform cell segmentation is the unique invasive form inside host tissue in chromoblastomycosis (da Silva *et al.* 2002, 2008). *Capronia* is the homothallic sexual genus covering all asexual members of *Herpotrichiellaceae*. Ascomata are setose containing 8–32-spored asci; ascospores are pale to dark brown and are generally transversally septate or muriform (Untereiner 1995). Species of the family are generally found in nutrient-poor habitats such as showers and sinks in bathrooms or washing machines and dishwashers (Hamada & Abe 2010, Lian & de Hoog 2010, Zalar *et al.* 2011, Zupancic *et al.* 2016), while some thrive in extreme environments such as on rocks or in toxic niches (Badali *et al.* 2011, Seyedmousavi *et al.* 2011, de Hoog 2014). A significant number of ant-associated undescribed species from carton galleries is also affiliated with this family (Voglmayr *et al.* 2011, Nepel *et al.* 2014).

The family ***Cyphellophoraceae*** is a small monophyletic group of species which are known through their asexual morphs only (Réblová *et al.* 2013). Conidia may be hyaline and one-celled, but several species have pale brown, curved conidia with thin cross walls. Conidiogenous cells are inconspicuously phialidic and are cylindrical and intercalary, or swollen and lateral. This family includes mild opportunists on human skin and nails in *Cyphellophora* and *Phialophora* (Fig. 1) (Feng *et al.* 2012, Gao *et al.* 2015).

The family ***Trichomeriaceae*** is composed by epiphytic species (Chomnunti *et al.* 2012a) and a large clade of rock-inhabiting species recently added (Isola *et al.* 2016). Remarkably also the genus *Arthrocladium* clusters in the family, known for a single strain causing a fatal disseminated human infection (Nascimento *et al.* 2016a). The single sexual morph in the family is the genus *Trichomerium*, which morphologically is very similar to *Capronia* above (Chomnunti *et al.* 2012a). *Trichomerium* was first placed within the *Chaetothyriaceae* on the basis of morphological similarities of sooty mould-like mycelium, but later a separate family was erected using improved phylogenetic analyses (Chomnunti *et al.* 2012a). Ascomata of the *Trichomerium* species are spherical, covered by long, scattered setae, and contain 8-spored asci with septate, often brownish ascospores. Recently, phylogenetic studies also added some paraphyletic taxa, which morphologically are very deviant, such as the asexual species *Brycekendrickomyces acaciae* (Crous *et al.* 2009). Also, some simple morphology known in the *Herpotrichiellaceae* is recurrent in the *Trichomeriaceae* in *Cladophialophora modesta* and *Cl. proteae* (Badali *et al.* 2008). Meristematic, non-sporulating species were classified in the genera *Knufia* and *Lithophila*, a group of largely rock-inhabiting species (with the exception of the lichenicolous species *Knufia peltigerae*) within the *Trichomeriaceae* (Isola *et al.* 2016). Numerous undescribed species of ant-associated fungi characterised by sooty mould-like mycelium are also contained within this family (Voglmayr *et al.* 2011, Nepel *et al.* 2014).

A recently proposed family is ***Epibryaceae*** (Gueidan *et al.* 2014), covering the genus *Epibryon* and the asexual morph *Leptomeliola ptilidii*, as well as some more simply structured asexual morphs that morphologically are classified as *Cladophialophora sylvestris*, *Cl. humicola* and *Cl. minutissima* (Badali *et al.* 2008, de Hoog *et al.* 2011, Gueidan *et al.* 2014). Several species are bryophilous fungi, but some have a rock-inhabiting life style, or occur in soil or on vascular plants. Ascomata are located superficially on or penetrating leaf tissue. Straight or curved dark setae cover globose to ovoid or pyriform, ostiolate,

pale to dark brown to black ascospores, and the 8-spored asci are ovoid, ellipsoidal or subcylindrical, without apical structures and containing transversely septate, ellipsoidal to fusiform ascospores (Döbbele 1997, Gueidan *et al.* 2014).

Of the families of *Chaetothyriales*, the *Herpotrichiellaceae* species exhibit highly diversified life styles and show recurrent infection of a variety of vertebrate hosts (de Hoog 2014). Often opportunistic behaviour in human patients is partly explained by a saprobic behaviour combined with thermotolerance, as in *Mucorales* where resistance to high temperatures – often associated with other types of extremotolerance – is classically viewed as a prime virulence factor (Scholer *et al.* 1983). Opportunistic species often possess dynamic and versatile pathways to sequester carbon from a wide range of substrates in the environment. By chance, when an opportunistic pathogen colonises its host, the abundance and diversity of genes associated with acquiring energy from particular carbon sources might be an advantage. Thus, metabolic plasticity combined with tolerance of adverse conditions could be considered as virulence factors in opportunistic fungi.

In *Herpotrichiellaceae*, warm- as well as cold-blooded vertebrates with intact immunity are commonly affected (Seyedmousavi *et al.* 2014), suggesting the presence of intrinsic virulence factors that are independent from temperature. This led us to perform a comparative genome approach in order to comprehend the general background of ecology-driven traits, adaptation to harsh and toxic environments, and association with vertebrate hosts. The phylogeny of the family *Herpotrichiellaceae* has been intensively investigated for several years by multi-locus sequence analyses based on ITS, *TEF1*, *BT2*, and *ACT1*, and occasionally with other genes. De Hoog *et al.* (2011) recognised six approximate clades, which showed somewhat different ecological trends (Fig. 1). The europaea-clade located in the basal position has recently been upgraded to family level as *Cyphellophoraceae* (Réblová *et al.* 2013). The jeanselmei-clade is basal to the *Herpotrichiellaceae* s.s. and contains several clinically relevant species, next to species which were often derived from environments rich in toxic monoaromatic hydrocarbons (Zeng *et al.* 2013). The dermatitidis-clade contains thermophilic *Exophiala* species from hot, low-nutrient water systems, sometimes causing disseminated infections in humans (de Hoog *et al.* 2011). The salmonis-clade harbours mainly mesophilic water-borne *Exophiala* species, often infecting aquatic animals such as fish and amphibians, but rarely humans (de Hoog *et al.* 2011). The two remaining clades comprise the major agents of phaeohyphomycosis and chromoblastomycosis, but species can also be found in the environment on plant debris (Salgado *et al.* 2004, Vicente *et al.* 2008). The carrionii-clade harbours some species that consistently cause chromoblastomycosis and which may perhaps be regarded as primary human pathogens (de Hoog *et al.* 2007). The same pattern is observed in the bantiana-clade, which harbours *Fonsecaea* and *Cladophialophora*, with an abundance of species causing serious human diseases (de Hoog *et al.* 2011, Najafzadeh *et al.* 2011a,b, Sun *et al.* 2012) as well in *Rhinochrysiella mackenziei*. The trends in all clades are approximate since pathogenic species are often flanked by free-living species. Also herpotrichiellacean asexual and sexual morph genera are polyphyletic, but as yet molecular phylogeny is too unstable to replace morphology-based taxonomy (Untereiner 1995, Haase *et al.* 1999, Untereiner & Naveau 1999, de Hoog *et al.* 2011).

The origin of *Chaetothyriales* is estimated at approximately 229 MYA during the Middle Triassic (Gueidan *et al.* 2011). It has been suggested that the Permian-Triassic (P-T) mass extinction, which deeply affected terrestrial and marine ecosystems, led to the development of a thermotolerant life-style on rock, possibly in association with toxin-producing lichens. After this, a rapid diversification of *Chaetothyriales* took place. In this vision, extremotolerance, and an efficient metabolism of carbon sources are atavisms from this period (Gueidan *et al.* 2011). The five families proposed in *Chaetothyriales* all contain a number of basal rock-inhabiting species with epiphytic or epilithic growth, suggesting a common origin of these life styles (Gueidan *et al.* 2014).

The dark coloration of chaetothyrialean mycelium is determined by the high production of melanin pigments, which was shown to contribute to the above discussed ecological niches as well contributing to resistance against host immune responses (Schnitzler *et al.* 1999, Zhang *et al.* 2013). The presence of melanin alone is not sufficient to explain pathogenicity as these polymers are known to be present in many *Pezizomycotina*, and additional factors discussed above may be involved to explain the pathogenic status of these fungi. The virulence of opportunistic black yeasts has been suggested to have evolved from adaptations to extreme environments, e.g. melanisation (Schnitzler *et al.* 1999, Feng *et al.* 2001), meristematic growth (Mendoza *et al.* 1993, Karuppaiyil & Szaniszló 1997), and general extremotolerance (Liu *et al.* 2004). Application of concepts of “focused” virulence and “dual ecology” may be considered for chaetothyrialean fungi to explain their ability to infect vertebrate hosts (Casadevall *et al.* 2003). Although the source of many black fungal infections are plant-debris and occasionally living plants, their association as common degraders of plant biomass could be a misconception. In order to understand the basic biology of *Herpotrichiellaceae*, their phenomenal adaptation to extreme environments, and mechanisms associated with infection of vertebrate hosts we sequenced the genomes of 23 BY type species and compared them to related pathogens in *Eurotiales* and *Onygenales* (Fig. 1). The general genomic characteristics (i.e., genome size, synteny, gene content, repetitive elements), phylogenomic tree, transposable elements, sex-related genes, gene family expansions and contractions, evolution of protein- and carbohydrate-degrading genes, and secondary metabolism were deeply investigated in order to understand processes of adaptation of *Chaetothyriales* to multiple environments.

MATERIALS AND METHODS

rDNA LSU phylogeny

Phylogenetic assessment was carried out for all 172 black yeast fungal strains deposited at the CBS-KNAW Fungal Biodiversity Centre (CBS), Utrecht, The Netherlands (Table S1). LSU rDNA sequences were retrieved from GenBank and aligned by means of MAFFT v. 7.273 (Katoh & Standley 2013). Isolates and GenBank accession numbers are listed in Table S1. Phylogenetic analyses using Maximum Likelihood (ML) and a Neighbour-Joining (NJ) were performed by MEGA v. 6 (Tamura *et al.* 2013) with Kimura 2-parameter model and statistical bootstrapping procedure involving 500 replicates.

Strains, DNA and RNA extraction

A set of 23 black fungal ex-type strains was obtained from CBS-KNAW Fungal Biodiversity Centre and cultivated in Malt Extract Broth (MEB) for 7 d with shaking at 150 rpm at 25 °C (Table S2). DNA extraction was performed via a cetyltrimethylammonium bromide (CTAB)-based method and phenol-chloroform/isoamyl alcohol purification (Möller *et al.* 1992). Total DNA was purified with Qiagen Genomic Buffer Set and the Qiagen Genomic-tip 100/G. Total RNA was isolated with RNEASY Mini kit (Qiagen, Hilden, Germany) according to the manufacturer's protocol. The additional strain *Cl. carrionii* KSF (dH 23894) DNA was obtained from 7-d-old mycelia cultured on Sabouraud Glucose Agar (BBL™) at 25 °C. DNA was extracted using the DNeasy Plant Mini Kit (Qiagen) according to manufacture protocols.

Genome assembly and gene prediction and annotation

The genome of *Cl. carrionii* KSF (dH 23894) was pyrosequenced using the platform 454 GS FLX (Roche). Shotgun and 3Kb paired-end libraries were sequenced using the GS FLX Titanium XLR70 chemistry (~450 bp reads). This genome was assembled using the NEWBLER software combining both paired-end and shotgun libraries (Margulies *et al.* 2005). The *P. atiae* genome was sequenced and annotated as previously described (Moreno *et al.* 2015). For the other 21 species, the genomes were sequenced using Illumina technology. The genome of *E. dermatididis* was previously described (Chen *et al.* 2014). For the 20 remaining species, genomic DNA was used to construct two libraries with approximate insert size of 180 bp and 3 kb; for *F. multimorphosa* only a 180 bases-insert library was constructed. Each library was sequenced on an Illumina HiSeq 2000 to generate 101 base paired-end reads. All sequence was assembled using Allpaths (version R48559 for most assemblies); assemblies were inspected for regions of aberrant coverage, %GC, or sequence similarity using GAEMR (www.broadinstitute.org/software/gaemr) and contaminating sequence including was removed.

Genes were predicted and annotated by combining calls from multiple methods. A training set was generated using Genewise (Birney *et al.* 2004) and Genemark (Lomsadze *et al.* 2005), and then GlimmerHmm (Majoros *et al.* 2004), Snap (Korf 2004) and Augustus (Stanke & Waack 2003) was used to generate *ab initio* gene models. For seven species, strand-specific libraries were constructed from total RNA using the Illumina TruSeq RNA Library prep. For each species, paired 76 base reads were generated on an Illumina HiSeq2000. RNA-Seq was assembled using Trinity (Grabherr *et al.* 2011) (version r20140413p1) in genome-guided mode (with parameters `genome_guided_max_intron 10000 – SS_lib_type RF – trimmomatic – min_kmer_cov 2`). All assembled transcripts were aligned to the genome using PASA (Haas *et al.* 2003) and used to update gene models, predict alternatively spliced transcripts, and add UTR predictions. In addition, any ORF present in the PASA transcripts that did not overlap a gene prediction was used to recover missed genes. The best gene model at a given locus was selected from these data sets using EvidenceModeler (EVM) (Haas *et al.* 2008); conserved genes missing in gene sets were identified using OrthoMCL (Li *et al.* 2003) and combined with the EVM set (Haas *et al.* 2008). All raw sequence data, assemblies, and annotations were submitted to NCBI (Finn *et al.* 2010)(Table S2).

Annotation of transposons

In order to ensure a robust detection of repeat element, we used inverted repeat finder (IRF) (Warburton *et al.* 2004) and Repeat Modeler (<http://www.repeatmasker.org/RepeatModeler.html>). IRF was set to identify pairs of repeats within a given of 20 kb. False positives candidates were filtered using the reference Pfam profile (using `pfam_scan.pl` with E-value threshold 0.00001) and RPS-BLAST against CDD profiles (with E-value threshold 0.001) (Finn *et al.* 2010, Marchler-Bauer *et al.* 2011). Multiple overlapping hits, were removed by `cd-hit` (Fu *et al.* 2012) clustering with sequence similarity threshold set to 100 and query coverage set to 99 % of the shorter sequence. The resulting customized reference was merged with RepBase and used as input for Repeat Masker searches (Jurka *et al.* 2005). All resulting sequences were translated in six frames and searched against a fixed list of reference Pfam HMM (Hidden Markov Model) profiles (using `pfam_scan.pl` with E-value threshold 0.01) and RPS-

BLAST against CDD profiles (with E-value threshold 0.001). Transposon classification was curated manually based on the encoded protein domains.

Annotation of CYP genes

Identification of Cytochrome p450 monooxygenases (CYPs) were carried out by HMMER v. 3.1 (Finn *et al.* 2011) which was used to perform sequence-profile HMM searches with the PFAM (Finn *et al.* 2010) profile PF00067 (downloaded from the PFAM protein families database, <http://pfam.xfam.org/>, last accessed September 16, 2014) against all 23 black yeast proteomes. Proteins that achieved the cut-off $1e-03$ were submitted to BLASTP searches against the fungal p450 CYPs database (Nelson 2009) (<http://blast.uthsc.edu>). The predicted CYPs p450 were assigned to family and subfamily types based on their BLASTP sequence identity. As recommended by the International P450 Nomenclature Committee, the cut-off of sequence identity was set at 40 % for family and 55 % for subfamily levels. Partial CYP p450 sequences (BLASTP identity > 40 % and coverage < 40 %) were classified as potential pseudogenes.

Annotation of transporter genes

Transporter gene classification was achieved with best match BLASTP (E-value threshold $1e-05$, and at least 50 % alignment-length coverage) to transporter sequences available at Transporter Classification Database (TCDB) (Saier *et al.* 2014).

Single-copy ortholog extraction and species tree inference

Clustering of single-copy orthologs across multiple fungal species was performed using ORTHOMCL (Li *et al.* 2003) version 1.4 with a Markov inflation index of 1.5 and a maximum e-value of 1×10^{-5} . Individual amino-acid sequences were aligned with MUSCLE (Edgar 2004) and poorly aligned regions were automatically removed using TRIMAL (Capella-Gutierrez *et al.* 2009) under the “-automated1” setting. The sequences were concatenated with FASCONCAT (Kuck & Meusemann 2010) v. 1.0 and species trees were inferred by maximum likelihood RAxML (Stamatakis 2006) using PROTGAMMABLOSUM62 and 1000 bootstraps was used to infer branch support. Beyond the 23 herein analysed black yeast-like fungi, the following outgroups from the orders *Eurotiales* and *Onygenales* were applied: *Trichophyton rubrum*, *Coccidioides immitis*, *Paracoccidioides brasiliensis*, *Aspergillus nidulans* and *A. fumigatus* (Fig. 1).

Genome-scale chaetothyrialean phylogeny and divergence times

The phylogenomic position of *Chaetothyriales* was inferred based on 264 single-copy orthologous protein clusters identified among 53 fungal species as mentioned above. Concatenated amino-acid sequences were aligned using MUSCLE (Edgar 2004). In order to select the most-reliable positions in the alignment, TRIMAL (Capella-Gutierrez *et al.* 2009) was used to eliminate poorly aligned regions (-automated1 option) resulting in 124,693 amino acid positions in the final alignment. Phylogenetic tree and branch lengths were inferred by Maximum Likelihood via a stochastic algorithm implemented in IQ-TREE software (Nguyen *et al.* 2015). Best-fit amino acid model selection was assessed using an automatic model selection (MODELFINDER) and also considering the FREERATE model (-m TESTNEW option), which assesses the fit of multiple of multiple mixture GTR within the same model, in many cases having a better fit when compared to models that use a single parametric distribution (Soubrier *et al.* 2012). Phylogenetic branch support was inferred by the ultrafast bootstrap approximation approach (UFBOOT), a measure that is better correlated to the actual probability of existence of a branch than the usual bootstrap (Minh *et al.* 2013). Divergence times were inferred using the RELTIME method (Tamura *et al.* 2012) implemented in the MEGA 7 software (Kumar *et al.* 2016) using the LG model (Le & Gascuel 2008). *Batrachochytrium dendrobatidis* (*Chytridiomycota*) was used as outgroup and three calibration constraints were considered for divergence time estimations: (1) *Basidiomycota* / *Ascomycota* split: 390–1,490 MYA; (2) *Pezizomycetes* crown: 230–970 MYA; and (3) *Sordariomycetes* stem: 210–890 MYA. Those calibrations were based on conservative intervals considering both primary (fossil) and secondary calibrations discussed in Lücking *et al.* (2009). A discrete Gamma distribution was used to model evolutionary rate differences among sites (5 categories; +G, parameter = 0.6655).

Functional domain prediction gains and losses

To identify functional domain gains and losses, INTERPRO (Mitchell *et al.* 2015) domains were predicted using INTERPROSCAN (Jones *et al.* 2014b) in all 23 black yeast-like species and in the outgroups with previously released genomes: *Trichophyton rubrum*, *Coccidioides immitis*, *Paracoccidioides brasiliensis* (order *Onygenales*), *Aspergillus nidulans* and *Aspergillus fumigatus* (order *Eurotiales*). Gene family evolution was estimated with CAFE (De Bie *et al.* 2006) v. 3.0 using a significance family-wide P-

value threshold of <0.05 and VITERBI P-values of <0.001 . To search for BIRTH (λ) values we ran the program with the “-s” option. Two files were used as input in CAFÉ analyses: a table containing the organism’s number of copies of each INTERPRO domain and an ultrametric tree constructed based on the species tree using a custom R script.

RESULTS

Phylogeny

The aligned LSU dataset of 172 black fungal strains was used to determine a phylogenetic tree of the entire order *Chaetothyriales*; the LSU gene was sufficiently conserved to allow confident comparison over the entire dataset. Both Maximum Likelihood and Neighbour-joining analyses produced corresponding trees in which the same clades were supported (Fig. 2). Moreover, the tree topology was congruent with previously reported phylogenies of *Chaetothyriales* (Réblová *et al.* 2013, Gueidan *et al.* 2014), supporting the presence of five distinctive families: *Chaetothyriaceae*, *Cyphellophoraceae*, *Epibryaceae*, *Herpotrichiellaceae*, and *Trichomeriaceae*. In the most represented family *Herpotrichiellaceae*, the species were resolved in six clades with different ecological preferences as reported by de Hoog *et al.* (2011). Overall, this family included several clinically relevant fungi as well as species isolated from a variety of environmental sources, especially sites contaminated with toxic monoaromatic hydrocarbons. Two sub-clades at family level resolution were identified within *Herpotrichiellaceae*: The upper clade harbour most of the *Exophiala* and *Rhinocladiella* asexual morphs while the lower clade is overrepresented by the genus *Fonsecaea* and *Cladophialophora*. Similarly, the family *Cyphellophoraceae*, which forms a supported monophyletic group, harbours both saprobic and medically important species responsible for mild opportunistic infections in human and animals. In contrast, the majority of the isolates belonging to the family *Trichomeriaceae* have an inert surface-inhabiting life style, while several are epiphytic. *Arthrocladium fulminans* seems to be the unique isolate causing a fatal disseminated human disease clustering in this family. The family *Epibryaceae* is located in the basal position, forming a distinct clade from other *Chaetothyriales*, but at relatively long branches (Fig. 2). Most of the isolates of this family are living plant associated.

Genome assembly and annotation

The assemblies were highly contiguous, with 12 consisting of 19 or fewer scaffolds, suggesting that many correspond to complete chromosomes. Genome assembly size varied from 25.8 Mbp for *Capronia coronata* CBS 617.96 to 43.3 Mbp for *Cladophialophora immunda* (CBS 834.96; Table S2, Fig. S1). Repetitive element identification was considered particularly low (ranging from 0.03 % to 5.2 %; Table S3) compared to other fungal species (Galagan *et al.* 2003; Martinez *et al.* 2012; Teixeira *et al.* 2014). This suggests that repeat content might not play an important role in determining genome size in black yeast-like fungi.

Genes were predicted combining *de novo* reconstruction of transcriptomes from RNA-seq data for some species and with *ab initio* and sequence homology based gene models. Corresponding with genome assembly sizes, high gene counts were found in *Capronia coronata* (9,231 predicted genes) and *Cladophialophora immunda* (14,033 predicted genes) (Table S2, Fig. S1). However, we did not observe a phylogenetic correlation between genome size and total gene number in the species examined (Fig. S1). Species of the jeanselmei- and bantiana-clades mostly experienced an increase in genome size as well as in predicted Open Reading Frames (ORFs) compared to ancestral populations (Fig. S1). Exceptions were *E. aquamarina* CBS 119918 with 41.7 Mb, while *E. sideris* CBS 121828 had a size of 29.5 Mb, as small as members of the carrionii-clade and similar to those of the dermatitidis-clade. In contrast, members of the dermatitidis-clade experienced a notable decrease in genome size and gene content (Fig. S1). Within *Ascomycota*, BY genomes had the highest percentages of G+C content reported to date, i.e., varying from 49 % in *E. aquamarina* to 54.3 % in *Cl. carrionii*, which could contribute to their thermotolerance (Nishio *et al.* 2003). This corresponds with low single dinucleotide repetitions found in BY genomes.

Using ORTHOMCL clustered proteins, we determined the protein core families that were conserved in all black yeasts under investigation and other related fungi. This resulted in 4,031 genes per genome in the core set conserved in all species (Fig. 3). The KOG annotation for these amino-acid sequences revealed that proteins responsible for housekeeping functions, particularly for translation and RNA processing, were more represented in the core set (Fig. S2). We also assessed the proteins specific to each clade. We considered as clade-specific proteins those proteins that were present in orthologous groups found in a unique clade but were absent from all others. Non-core proteins may provide insight into specific processes and may be indicative of certain ecological preferences. For example, enzymes related to metabolism of carbohydrate (G) were found to be over-represented in the jeanselmei-clade (p -value = $1e-04$; Fisher’s exact test). Similarly, enzymes associated to secondary metabolites (Q) were found to be enriched in the bantiana- (p -value = $3e-13$; Fisher’s exact test), salmonis- (p -value $< 1e-08$; Fisher’s exact test) and jeanselmei-clades (p -value = $7e-08$; Fisher’s exact test).

On the other hand, the dermatitis-clade proteins were under-represented for these functions (G: p-value 2-e01; Q: p-value 9-e02; Fisher's exact test) suggesting a reduced secondary metabolite producing capacity (Fig. S2).

Transposable elements

The members of the families *Herpotrichiellaceae* and *Cyphellophoraceae* have low content of transposable elements (Fig. S3, Table S3). Prevention of accumulation of transposable elements in BY genomes might be driven by the hyper-mutation process of repeat-induced point mutation (RIP). The scarcity of transposable elements results in decreased abundance of transposon encoded proteins such as reverse transcriptase (RT domain -IPR00477). Despite the low incidence of repetitive elements in BY genomes, we detect several TEs in the bantiana- and jeanselmei-clades, especially of the DNA Transposons LINE and the LTRs retrotransposons when compared to remaining clades (Fig S3). *Rhinocladiella mackenziei*, not assigned to any clade, also contained a higher number of elements with some specific expansions, such as the Helitron class (Table S3). The *E. aquamarina* genome presented the highest number of TEs (5.2 %), possibly reflecting its relatively significant genome expansion compared to other BY genomes (Fig. S3). It has been described previously that eukaryotic genomes of moderate sizes tend to have a linear correlation between complexity and genome size (Metcalfe & Casane 2013). Black yeast moderate genome sizes correlate well with the scarcity of repeats.

Within the *Onygenales*, which are generally related to animal hosts either as saprophytes or pathogens, there are organisms with small compact genomes and others with expanded complex genomes. The transposon-rich *Ajellomycetaceae* (*Blastomyces*, *Histoplasma*, and *Paracoccidioides*) and *Onygenaceae* (*Coccidioides*) compared to dermatophyte *Arthrodermataceae* (*Trichosporon*, *Arthroderma*, *Microsporium*), which have streamlined genomes with single repeats. The opportunistic *Onygenales* seem to have a more diverse TE landscape whereas specialised dermatophytes reduced their genomes. *Blastomyces* transposons have expanded up to 63 % of the genomes in a low GC genomic environment (Muñoz *et al.* 2015). Lower GC is expected to favour mobile element integration (Wicker *et al.* 2007). Additionally during genome duplication often mobile elements proliferate (Ma *et al.* 2009).

Vma1-a inteins reveal a new evolutionary trend

We detected the presence of self-cleaving parasite proteins of the MEROPS N09 family, nested within Asparagine Peptide Lyases among some of the BY genomes. The N09 domain is commonly found within intein-containing V-type proton ATPase catalytic subunit A in several species of yeasts and genera of *Archaea*, i.e. *Thermoplasma* and *Pyrococcus* (Perler 2002) (*vma-1a* and *vma-1b* inteins, respectively) (Perler *et al.* 1994, Liu 2000). This mobile element is spliced out from host protein sequences (or exteins) after its translation through an autocatalytic process. This parasite domain, which was suggested to have been acquired by a process of horizontal gene transfer (HGT), has a high sequence similarity with *Archaea* / *Bacteria* because of its convergent evolution along the fungal tree of life (Goddard & Burt 1999, Poulter *et al.* 2007, Swithers *et al.* 2013). We detected the presence of *vma-1a* class intein in the *R. mackenziei* (Z518_00231) and *F. pedrosoi* (Z517_06303) genomes, suggesting a broader distribution within *Ascomycetes* (Fig. S4). We extended our analysis throughout other *Pezizomycotina* using INBASE (Perler 2002), and the *vma-1a* intein was also found in members of *Sordariomycotina*, i.e. *Sporothrix schenckii*, *S. brasiliensis*, and *Stachybotrys chartarum* genomes, bringing the total number of non-yeast species with inteins herein to five. In contrast, this self-cleaving protein is widely distributed among *Saccharomycotina*. Those five *Pezizomycotina* species are nested in a monophyletic clade apart from remaining species of *Saccharomycotina*, which may represent a new class of this element. The Host V-type proton ATPase protein, splicing and DOD homing endonuclease motifs were all identified and conserved with *Candida glabrata* *vma 1-a* (Fig. S4). However, the DOD homing endonuclease motif blocks D and E do not seem to be conserved with *vma 1-a* in *Saccharomycetales*. On the other hand, motif blocks D and E appear to be highly conserved with those presented in the PRP8 intein among *Pezizomycotina* (data not shown). Here we report on additional *vma-1a* intein, showing that they are found in more diverse fungal species within *Pezizomycotina*. V-ATPases are in general responsible for acidification of a variety of intracellular compartments, especially the vacuolar membrane vesicles of *Eukaryotes*. These mobiles genetic elements are self-spliced due stress adaptation (Senejani *et al.* 2001, Topilina *et al.* 2015, Novikova *et al.* 2016) and may play an important role in the regulation of extremotolerance of many BYs.

Origin of black yeast species and divergence times

A multigene phylogenetic species tree for a broad panel of 53 fungal species was generated using 264 single-copy orthologs. Representatives of chaetothyrialean families other than *Herpotrichiellaceae* and *Cyphellophoraceae* are still missing. With this limitation, two groups are sufficiently remote to conclude that as yet the order *Chaetothyriales* harbours two monophyletic families, *Herpotrichiellaceae* and *Cyphellophoraceae* which ancestry is found around 130 MYA during the cretaceous period (Fig.

4). Based on morphological and molecular methods with conserved genes, *Coniosporium apollinis* has previously been placed early in the *Chaetothyriales*. However, using a genome-scale phylogenetic tree, we demonstrated that this fungus is more closely related to the order *Botryosphaeriales* in the *Dothideomycetes* (Fig. 4). The *Chaetothyriales* are close to *Verrucariales* and *Phaeomoniellales*. These orders are displayed as paraphyletic branches and compose, along with *Onygenales* and *Eurotiales*, the subphylum *Eurotiomycetes*. Judging from the calibrated phylogenetic tree, the early and major BY lineages of *Herpotrichiellaceae* and *Cyphellophoraceae* are contemporaneous and emerged around 75–50 MYA during/after the Cretaceous-Paleogene (K-Pg) extinction event (Fig. 4). It is worth noting that the radiation of *Chaetothyriales* took place more recently than that of *Onygenales*.

Gene family evolution in black yeast

INTERPROSCAN was used to identify protein domains in all 23 black yeasts and in related fungi in *Eurotiomycetes*, including *Trichophyton rubrum*, *Coccidioides immitis*, *Paracoccidioides brasiliensis* (order *Onygenales*), and *Aspergillus nidulans* and *Aspergillus fumigatus* (order *Eurotiales*). The species tree was inferred by maximum likelihood RAxML (Stamatakis 2006) based on the concatenated amino acid sequences of 4,031 single-copy orthologous genes shared by all 23 species. Domain gain events (expansions) and domain loss events (contractions) were estimated with CAFÉ (De Bie *et al.* 2006) in each black yeast and ancestral node of the species tree. The dynamic evolution of protein domain families in black yeast is shown in Fig. 5A.

Overall, we observed 46 genomic novelties associated with protein domain expansions and contractions, which arose early in the evolution of these fungi and that were present in the common ancestor of *Chaetothyriales* examined (Table S4). We speculate these expanded domain families have provided selective advantage and extremotolerance for adaptation to ecological niches that are subjected to environmental stress. Black yeasts are known for their extremotolerance and are able to grow and thrive in hostile habitats, such as those containing toxic compounds, high and low temperature, scarcity of nutrients, or conditions of dryness (Gostincar *et al.* 2010). We assessed a correlation between the seven domain family expansions and the ecological preferences in herpotrichiellaceous black yeast. These functional domains are likely to be involved in metabolic processes with oxidoreductase activity. Among them, four domains are related to Aldehyde dehydrogenases (ALDHs), which catalyse the oxidation of different aldehydes to their corresponding carboxylic acids (Perozich *et al.* 1999). Since several aldehydes are toxic at low levels, this vast repertory of ALDHs present in BYs is likely to play a role in diverse reactions supporting extremotolerance. Three domains are related to zinc-containing alcohol dehydrogenase (Adh), which catalyse the oxidation of alcohols to their corresponding acetaldehyde or ketone. The IPR013154 and IPR013149 correspond, respectively, to the N-terminal and C-terminal portions of this enzyme and IPR011032 represents an oligomeric molecular chaperone associated with the N-terminal region involved in the folding protein process (Walter 2002). Adh are thought to be proteins prone to evolutionary changes following gene duplication due to their ability to assume new functions as consequence of their broad spectrum of substrates (Piskur *et al.* 2006, Conant & Wolfe 2008). Furthermore, a physiological role of Adh has been reported in many biochemical pathways including stress tolerance, pathogenicity, detoxification, and substrate specificity (Piskur *et al.* 2006, Grahl *et al.* 2011). As expected for a fungal family with many members tolerating extreme conditions, the expansion of alcohol dehydrogenase domains in the black yeast from a common ancestor may have determined the diversification of these organisms in a range of ecological niches. Another important domain expansion verified in the common ancestor of all black yeasts analysed was the trichothecene efflux pump (IPR010573), which might have been important in black yeast to colonize sites contaminated with this class of compounds.

Analysis focusing on individual clades revealed that the bantiana- and carrionii-clades, which have pronounced trends in vertebrate infection, evolved in opposite directions (Fig. 5B). Several domains expanded in the bantiana-clade appeared to be reduced in the carrionii-clade. This would suggest that specific expansions in the bantiana-clade are attributed to ecological preferences in these organisms. However, the clades contain *Fonsecaea pedrosoi* and *Cladophialophora carrionii*, respectively, which cause the same disease, chromoblastomycosis, with the same invasive form, the muriform cell, and which thus do not share specific domains.

We did not observe expansions exclusive to the dermatitidis-clade. Previously domain expansions attributed to *Exophiala dermatitidis* (Chen *et al.* 2014), such as IPR002656 and IPR020843, were also found expanded in members of the jeanselmei- and salmonis-clades. Unlike truly pathogenic fungi possessing a specialized thermosensitive tissue phase (Sharpton *et al.* 2009), we did not observe massive functional domain loss compared to the ancestral black yeasts.

Cytochrome p450 expansion and diversification

Cytochrome p450 genes (CYPs) play a fundamental role in primary, secondary, and xenobiotic metabolism (van den Brink *et al.* 1998). Due to their participation in a large number of detoxification reactions as well as in the metabolism of specific xenobiotics which may be co-assimilated as carbon source, CYPs are thought to be critical for the colonization of new ecological niches (Moktali *et al.* 2012). In fungi, point mutation and overexpression of CYP family-specific genes have been found to be

responsible for drug resistance (Lamb *et al.* 1997, Lupetti *et al.* 2002, Ma *et al.* 2006). The evolution of fungal pathogenesis is thought to be associated with CYP family expansion and diversification through gene duplication. Our CYP prediction analysis revealed an extraordinary p450 repertoire in black yeast-like fungi ranging from 231 predicted CYPs in *Cladophialophora psammophila* to 60 predicted CYPs in *Capronia coronata* (Table 1). Notably, *Cl. psammophila* was found in a hydrocarbon-polluted environment (Badali *et al.* 2011), while *Ca. coronata* is a coloniser of decorticated wood in nature (Müller *et al.* 1987). A comparison of the predicted number of CYPs to those of other species in the Fungal Cytochrome P450 Database (FCPD) (Park *et al.* 2008) showed that some black yeasts are among the *Ascomycota* species with the highest number of CYPs (Fig. 6).

A total of 2740 CYP sequences were clustered in 131 families (Table S5) and 175 subfamilies according to their amino acid sequence identity against the Fungal p450 CYPs database (Nelson 2009). One hundred and nine partial CYP p450 sequences (BLASTP coverage > 40 %) were classified as potential pseudogenes due to the occurrence of premature stop codons or presence of frameshifts (Table S6). These sequences are shorter than their homologs in other fungi. Potential pseudogenes were not included in downstream analysis. Comparative analyses revealed striking differences and expansions across the black yeast-like fungi in a range of CYP p450 families. We observed notorious CYP family expansions, mainly, but not exclusively, in species belonging to the bantiana-clade (CYP530, CYP682, CYP504, and CYP52) (Table S5). These CYP families potentially affect the metabolism of phenolic compounds and aromatic hydrocarbons (Olivera *et al.* 1994, Cox *et al.* 1996, Lin *et al.* 2011, Muktali *et al.* 2012, Zhang *et al.* 2012). Our findings are consistent, to some extent, with previous studies showing that some black yeasts appear to have adapted to grow in environments polluted with aromatic hydrocarbons (Woertz *et al.* 2001, Prenafeta-Boldú *et al.* 2002, 2006, Zhao *et al.* 2010a). Particularly important due to its abundance in some black yeast species, CYP530 is thought to participate in the degradation of several fatty acids and hydrocarbons (Muktali *et al.* 2012). This CYP was found ranging from 13 copies in *Cladophialophora psammophila* and *Fonsecaea pedrosoi* to complete loss in *Cl. yegresii* (Table S7). The phylogenetic tree of CYP530 revealed multiple recent duplications and expansions. In addition, we observed two monophyletic clades likely correspond to distinctive subfamilies of CYP530 (Fig. S5). This gene redundancy observed might have been used to guard the above described critical functions as was shown in other fungi (Skamnioti *et al.* 2008). To the best of our knowledge, the 13 copies is the highest rate of CYP530 reported in the fungal Kingdom (Table S7). Since *Cladophialophora yegresii* was only isolated from thorns of living cactus and was able to grow as an endophyte in cactus tissue (Fernández-Zeppenfeldt *et al.* 1994, de Hoog *et al.* 2007), it might be speculated that the absence of genes involved in secondary metabolism, such as CYP530, may implicate a biotrophic lifestyle where the organism obtains essential nutrients from its host.

At the subfamily level, we verified that the housekeeping genes CYP51F (encoding lanosterol 14 α -demethylase) and CYP61A (encoding sterol delta22-desaturase), which are implicated in sterol biosynthesis (Yoshida & Aoyama 1984, Podust *et al.* 2001, Lepesheva *et al.* 2008, Park *et al.* 2011) comprise one of the most conserved subfamilies across black yeast-like fungi. Azole antifungal agents interacting with CYP51, lead to growth inhibition and the death of fungal cells due to an ineffective conversion of lanosterol to ergosterol (Yoshida 1988, Kelly *et al.* 1997). It has been demonstrated that additional copies of, as well as point mutations in, the CYP51 gene may lead to acquisition of resistance in fungi (Sanglard *et al.* 1998, Jones *et al.* 2014a). Our analyses revealed that most species have two CYP51F copies, whereas members of the dermatitidis-clade, *Rhinocladiella mackenziei* and the outgroups *Coniosporium apollinis* and *Verruconis gallopava*, have a unique CYP51F gene (Fig. S6). The important Y136F mutation (Mullins *et al.* 2011, Jones *et al.* 2014a) associated with CYP51 copy number variation and involved in azole resistance was not identified in these genes. This suggests that the tolerant allele, responsible for the azole resistance, is acquired only in the presence of azole fungicides. CYP61A was found in a single copy in all genomes studied.

Aromatic compound metabolism

Comparative analyses revealed that the genes *PHA* and *HGD* are organized in a syntenic cluster with at least six additional conserved genes (Fig. S7). We verified that this gene cluster organisation was retained by natural selection in most *Herpotrichiellaceae*. Besides the *PHA* and *HGD* genes, this cluster includes a variable number of genes coding for hypothetical proteins, an MFS transporter, a trehalose-6-phosphate hydrolase (T6P-hydrolase), and a fumarylacetoacetase (Fig. S7). T6P has been linked to diverse roles, such as energy source, protectant against stress of heat, freezing, starvation, dehydration, and desiccation (Wiemken 1990, Iturriaga *et al.* 2009), and is important in fungal pathogenicity (Van Dijck *et al.* 2002, Petzold *et al.* 2006, Ngamskulrunroj *et al.* 2009). The presence of *PHA*, *HGD*, and fumarylacetoacetase in this cluster overlaps the styrene degradation pathway, which might support the involvement of these genes in the degradation of aromatic compounds (Fig. S7). The MFS transporter may be involved in energy production transporting simple sugars across the mitochondrial membrane. As the synteny of these genes is highly conserved in several black yeast-like fungi, we hypothesize that the cluster configuration was probably acquired by their common ancestor, and subsequent gene rearrangement resulted in the current gene order and orientation in the extant species.

Secondary metabolism

Fungal secondary metabolites (SMs) are natural products important for the colonization of specific ecological niches. Despite their wide variation, all secondary metabolites are produced by a few common biosynthetic pathways and classified according to the enzyme involved in their biosynthesis: polyketides (PKS), non-ribosomal peptides (NRPS), terpenes and indole alkaloids (Keller *et al.* 2005). We identified a large number of potential gene clusters for secondary metabolite present in black yeast (Table 2). The majority of these biosynthetic clusters correspond to PKS I/III (101 clusters), terpene (91 clusters) and NRPS (61 clusters), although it was verified that some species possess hybrid clusters (Table 2). In addition, the PKS III cluster was found only in Chaetothyriales since *Coniosporium apollinis* and *Verruconis gallopava* lack such gene cluster.

Melanin synthesis

Fungi may produce melanin via distinct pathways: the eumelanin via the DHN and DOPA pathways, and the pyromelanins via L-tyrosine degradation pathway (Langfelder *et al.* 2003). Recently, homologs of these three pathways have been identified in the pathogenic black yeast *Exophiala dermatitidis* and in other filamentous fungi (Youngchim *et al.* 2004, Chen *et al.* 2014). Similarly, we found that members of *Herpotrichiellaceae* possess several melanin-associated genes, suggesting they would be able to produce melanins using all different pathways, as was also suggested for *Fonsecaea monophora* (Li *et al.* 2016). Unlike other filamentous fungi, where the melanin genes are frequently encoded in biosynthetic gene clusters (Kimura & Tsuge 1993, Woo *et al.* 2010), we did not verify this organisation in black yeast-like fungi.

The dark polymer 1,8-dihydroxynaphthalene (DHN) melanin is produced via the DHN-melanin pathway and believed to be the best characterised fungal melanin biosynthetic pathway. Comparative analyses between previously released melanin-associated genes (Chen *et al.* 2014) and our dataset revealed that many, but not all black yeasts possess homologs for the production of melanin by the DHN pathway (Table S8). The equally dark-pigmented outgroups *Verruconis gallopava* and *Coniosporium apollinis* outside of or basal to the *Chaetothyriales* showed the highest number of missing genes, including the known multicopper oxidases (MCOs) required for melanin biosynthesis. This suggests that the DHN-melanin pathway has been better conserved among the *Herpotrichiellaceae* and *Cyphellophoraceae*. However, MCOs with low similarity to known and well-characterised enzymes have been reported in fungi (Tamayo-Ramos *et al.* 2012) and additional knowledge about their enzymatic properties is required to elucidate the DHN-melanin pathway in these species.

Similar to the DHN pathway, DOPA-melanin pathway homologs were identified across black yeast-like species. Of particular interest was the high number of tyrosinases and laccases found in *Herpotrichiellaceae*, but not in the outgroups *Verruconis gallopava* and *Coniosporium apollinis* (Table S8). The presence of multiple laccases only in *Herpotrichiellaceae* supports a diversification of this enzyme that occurred late in the evolution of black yeasts. A possible explanation for the presence of multiple laccase genes would be the various functions that have been attributed to this enzyme other than pigmentation, such as degradation of organic pollutants and lignin, and stress tolerance (Baldrian 2006, Rodriguez Couto & Toca Herrera 2006).

Protein degradation

The overall counts of the main MEROPS (Rawlings 2010, Rawlings *et al.* 2014) peptidase families revealed the abundance of serine- (S) and metallo- (M) peptidase families in *Chaetothyriales* (Table S9). With the exception of the dermatitidis-clade, members of both *Herpotrichiellaceae* and *Cyphellophoraceae* presented specific and significant number of S09 (S09X sub-family), S33, and M38 families according to CAFÉ analysis (Fig. S8). S09X and S33 families appear to be significantly depleted in *Eurotiales* and *Onygenales*, while these proteins might play an important role in the ecology of *Chaetothyriales* (Muszewska *et al.* 2011). Cluster analysis of sequences from the S09X family revealed that most BY protein expansions were found in two different clusters (Fig. S8). Protein sequence classification showed that S09X corresponds to alpha/beta hydrolase fold-3 (IPR013094/PF07859) and proteins containing a carboxylesterase type B (IPR002018/PF00135) domain (Fig S9). Gene tree reconstruction showed that main gene duplication events were at the basis of the M38 IPR002018/PF00135 domain expansion in BY, while several losses in *Eurotiales* and *Onygenales* explain the relative accumulation of IPR013094/PF07859 proteins in BY (Fig. S9). According to several authors, the expansion of metalloproteases M35 and M36 could be associated with mammal-host association (Sharpton *et al.* 2009, Martinez *et al.* 2012, Whiston & Taylor 2015). According to MEROPS classification, the M35 and M36 protein families are depleted in *Cyphellophoraceae* and absent among *Herpotrichiellaceae* (Fig. S9). On the other hand, we detected an expansion of M38 proteins in BY, which may be associated with β -aspartyl dipeptidase acting in the release of iso-aspartate residues from peptides as characterised for bacteria (Borek *et al.* 2004). Cluster analysis of the M38 family revealed that most of the BY protein expansions were found to be enriched in the highlighted three clusters (Fig. S10). Protein sequence classification of those three clusters revealed that M38 BY enrichment corresponds to an amidohydrolase/metal-dependent hydrolase (IPR011059, IPR006680/PF01979) domain containing proteins. In cluster III,

beyond these domains, we detected the presence of a tryptophan synthase (IPR001926) domain expanded in *Herpotrichiellaceae* and *Cyphellophoraceae* (Fig. S10).

Carbohydrate-active enzymes

Carbohydrate-active enzymes (CAZymes) are responsible for the degradation, modification, and biosynthesis of carbohydrates and glycoconjugates (Cantarel *et al.* 2009). The family classification system based on amino-acid sequence and structure similarities has been used to group the CAZymes into five classes of enzyme activities and one associated module: glycoside hydrolases (GHs), glycosyltransferases (GTs), polysaccharide lyases (PLs), carbohydrate esterases (CEs), auxiliary activities (AAs), and the associated module carbohydrate-binding modules (CBMs) (Cantarel *et al.* 2009). In this study we determined the CAZymes composition distributed across the black yeasts and compared this with other ascomycetes. In total, 154 CAZymes families were identified in the predicted protein sets. Generally, the highest and the lowest number of CAZymes were found in members of the jeanselmei- and dermatitidis-clades, respectively, although the variation observed between species within clades was considered low. Some CAZymes appeared to be clade-specific. For example, the GH62 family was only found in the europaea-clade (*Cyphellophoraceae*). On the other hand, several CAZymes were identified in all species examined (Table S10).

Some striking depletions were verified in CAZyme families involved in the degradation of plant material. Plant cell wall polysaccharides are subdivided into three categories: cellulose, hemicellulose (including xylan, xyloglucan, glucogalactomannan, galactan, and respective side chains), and pectin (composed of galacturonan, rhamnogalacturonan, and respective side chains) (Amselem *et al.* 2011). Most black yeast-like fungi lack the pectinases PL1, PL3, PL4, PL7, PL9, and PL10 (Table S10). Comparable depletions have been reported in species of *Onygenales* (Desjardins *et al.* 2011), and *Sporothrix* (Teixeira *et al.* 2014) while they are present in *Eurotiales*. The β -1,4-glycosyl hydrolase family 28 (GH28) is another family linked to the breakdown of pectins. This enzyme is absent in the dermatitidis-clade, jeanselmei-clade, and salmonis-clade, but present in the bantiana- and europaea-clades. Similarly, pectin methyltransferase family CE8 and pectin acetyltransferase family CE12 are absent in *Herpotrichiellaceae*. Comparable patterns are found in the xylan-associated enzyme family GH11 (endo- β -1,4-xylanase), present only in the carrionii- and europaea clades, as well as in *Eurotiales*, and CE 1 (acetyl xylan esterase) missing in *Onygenales* and in all black yeasts examined.

Depletions were also verified in chitin-related enzymes, a critical component of the fungal cell wall (Latgé 2007). Black yeasts on average have 5 members of the chitinase family GH18 per species. In contrast, *Onygenales* and *Eurotiales* have 10 and 21 members per species on average, respectively (Table S10). Moreover, the Carbohydrate-Binding Module Family 18, which is often found attached to a number of chitinase catalytic domains, is depleted in black yeasts. These comparisons suggest that the breakdown of chitin is likely reduced compared to other filamentous fungi.

The family AA4 contains vanillyl-alcohol oxidase (VAO), which is missing in several other ascomycete fungi and is well represented in BY. VAOs catalyze the oxidation of a wide range of phenolic compounds and are abundant in black yeast genomes ranging from 10 copies in *Cladophialophora psammophila* to two copies in *Capronia coronata*. This finding is consistent with the ability of many black yeasts to degrade aromatic compounds (Isola *et al.* 2013).

Cell-wall biosynthesis

The cell wall is an essential structure involved in protective functions against osmotic pressure and environmental stress (Bowman & Free 2006). The three major fungal cell wall constituents are chitin, mannan, and β -glucan. These components have been implicated in fungal virulence and represent targets for immune surveillance mechanisms (Bulawa *et al.* 1995). In agreement with previously published data (Chen *et al.* 2014), BY genomes encode an arsenal of genes involved in chitin synthesis. All 7 proposed classes of chitin synthase genes (CHS) previously described in fungi (Roncero 2002) were present in BY, except Class VI, which is missing in *Rhinoctadiella mackenziei*. This species is recognised as an important causative agent of cerebral phaeohyphomycosis (Li & de Hoog 2009); mutants in CHS-VI are viable and less virulent (Bulawa *et al.* 1995). Proteins linked to the regulation and exportation of chitin synthase are conserved in BYs (Table S11). In contrast, comparative analysis of chitin degradation genes showed that black yeasts lack chitosanase, which is conserved in *Saccharomyces cerevisiae* and *Schizosaccharomyces pombe* (Table S11). Additionally, BYs have fewer chitinase proteins belonging to the family GH18 compared to other filamentous fungi, as described above (Table S11). Chitin deacetylases, which are believed to be secreted exclusively during modification of chitin in the cell wall (Zhao *et al.* 2010b), are missing in the carrionii-clade and in *R. mackenziei*.

Investigation of the genes related to synthesis and processing of 1,3- α -glucan revealed they are altered significantly in the species analysed. The Ags family of 1,3- α -glucan synthase is absent only in *Exophiala dermatitidis*, but the Agn family of 1,3- α -glucanases is absent from the dermatitidis-, jeanselmei-, and salmonis-clades, and in *Rhinoctadiella mackenziei*, even though these families are present with multiple copies in *Aspergillus*. Furthermore, BYs possess a putative α -amylase believed to be involved in the formation and/or modification of α -glucans (Table S11).

Transporters

Black yeasts like other filamentous *Ascomycota* possess a large proportion of genes associated with transporter activity. Our InterProScan analysis revealed that the most abundant protein domain verified in several BYs contains several families of transporters, particularly the Major Facilitator Superfamily (MFS). To better understand the transporter mechanisms in BYs, we annotated transporter subfamilies across all 21 species based on their best match to the curated transporter database TCDB (Saier *et al.* 2006). Overall, black yeasts possess more MFS transporters than species of *Onygenales* and *Eurotiales*.

The most abundant transporter subfamily found in BYs is a potential nicotinate permease. It has 27 candidate genes in the outgroups *Verruconis gallopava* and *Coniosporium apollinis*, but up to 93 candidate genes in *Exophiala aquamarina*. This transporter belongs to the family of the Anion:Cation Symporter (ACS) (TC 2.A.1.14.11) of the major facilitator superfamily. Another MFS subfamily with a remarkably high number of predicted members is the trichothecene efflux pump (TC 2.A.1.3.47) of the Sugar Porter (SP) family. Since toxin efflux pumps are responsible for mediating both intrinsic and acquired resistance to toxic compounds, this result provides genomic insight into the known extremotolerance of black yeast-like fungi. Moreover, this finding is consistent with the expansion of the trichothecene efflux pump protein domain (IPR010573), as described above.

At family level, the Sugar Porter (SP) Family, the Anion:Cation Symporter (ACS) Family, and the Drug:H⁺ Antiporter-1 (12 Spanner) (DHA1) Family are the most abundant in BYs. Interestingly, among the family DHA1 we verified that the subfamily 2.A.1.2.77, which confers phenylacetate resistance, is well-represented in the majority of the species examined. Other families verified in all BYs analyzed comprise the Ferroportin (Fpn) Family (TC 2.A.100), the Proton-dependent Oligopeptide Transporter (POT/PTR) Family, and the Equilibrative Nucleoside Transporter (ENT) Family.

Sexual and parasexual reproduction

Fungi exhibit a wide diversity of reproductive modes, including sexual, asexual, and parasexual cycles. Recombination is an important and needed process in any fungal life-cycle, and may alter virulence traits, increase fitness in new ecological niches, and eliminate deleterious mutations (Heitman 2006, Lee *et al.* 2010, Ni *et al.* 2011). We used models of sexual and parasexual cycles of *Aspergillus nidulans* and *Neurospora* for BY comparisons (Glass *et al.* 1990, Paoletti *et al.* 2007, Debuchy *et al.* 2010, Zhao *et al.* 2015). We first identified the mating-type idiomorph within each assembled genome. Homothallicism of *Capronia coronata* and *Ca. epimyces* was confirmed by identifying both *MAT1-1* and *MAT1-2* *Aspergillus* homologues closely clustered in a single assembled scaffold (Fig. 1). With the exception of outgroup species *Verruconis gallopava* (*Venturiales*), the remaining analysed 20 genomes of asexual species harboured a single mating type idiomorph (either *MAT1-1* or *MAT1-2*) within each assembly, confirming that these fungi are heterothallic (Fig. 1).

We analysed the *MAT* locus organisation within the main groups of *Herpotrichiellaceae* and *Cyphellophoraceae* using genomic information from the *MAT* flanking genes. Among *Eurotiomycetes*, the flanking genomic regions of the *MAT* locus harbours *APN2*, *SLA2*, *APC5*, and *COX13* genes, which are conserved and organized in synteny (Coppin *et al.* 1997, Fraser *et al.* 2007, Paoletti *et al.* 2007). We first aligned and compared the gene models from both dothideaceous species *V. gallopava* and *Coniosporium apollinis*. The *APN2*, *COX13*, *APC5*, and *CIA30* genes appear to be conserved in synteny and preserved in the right *MAT* flanking region (Fig. 7). However, the *SLA2* gene was not found in the *MAT* locus in these species, but is not genomic linked. *Coniosporium apollinis* is inferred to be a heterothallic species since it harbours a single copy of the *MAT1-1* gene in its genome. In the left flanking site of the *MAT* locus we found a homologous protein that was syntenically conserved between the two dothideomycete species (PV09_01802 / W97_06799); in the genomic alignments it is adjacent to the *MAT1-1* genes of *Coniosporium apollinis* W97_06800 and W97_06801 (Fig. 7). Thus, the *MAT* locus of *V. gallopava* harbours two different ORFs: PV09_01800 and PV09_01801, which are not present in the *MAT* locus of the *Coniosporium apollinis* genome. According to the protein classifications and annotation, the ORF PV09_01800 is unique to *V. gallopava* and no putative domains were found. On the other hand, the ORF PV09_01801 encodes a homeodomain-like (HD) protein that carries a DNA-binding homeodomain motif (Fig. 7). This domain is found within the mating types 1 and 2 genes (*MAT/MTL α 2*, *Pi* and *MAT/MTL α 1*) in yeasts of *Saccharomycotina* and *Taphrinomycotina* in *Ascomycota*, as well in *Basidiomycota* (Martin *et al.* 2010). According to Lee *et al.* (2010), this domain was lost during speciation of *Pezizomycotina*, but our analysis of additional species revealed that the HD domain was recognized as a potential mating regulator in *Venturiales* (Fig. 7). On the other hand, we confirmed the lack of the HD in *Eurotiomycetes* (including BYs) once an α -box and HMG were found in the *MAT* locus.

We detected the *MAT1-1* (α -box) and *MAT1-1-5* genes within the mating type 1 locus and/or the *MAT1-2* (HMG) gene in *Chaetothyriales* (Fig. 1). The function of *MAT1-1-5* in mating is not well established, and appears poorly conserved with *MAT1-1-4* gene among *Onygenales* (Mandel *et al.* 2007, Burmester *et al.* 2011). As reported previously for some ascomycete species (Yun *et al.* 1999, Tsui *et al.* 2013), we obtained indirect evidence of a truncated version of the *MAT1-1* gene within the *MAT1-2* idiomorph, potentially driven by unequal recombination at the *MAT* locus in an ancestor of *Chaetothyriales* (Figs 8-12). The loss of a functional α -box domain suggests that the truncated *MAT* gene might have diverged under low selective pressure after

unequal recombination, or was silenced due to interference if both HMG and α -box domains were present. The *COX13* gene appears not to be conserved among *Chaetothyriales* in the flanking regions of the *MAT* locus as usually observed in *Eurotiomycetes* (Coppin *et al.* 1997, Debuchy *et al.* 2010, Lee *et al.* 2010).

The *Cyphellophoraceae* species *Cyphellophora europaea* and *Phialophora attae* presented a rather conserved *MAT* locus structure compared to other *Eurotiomycetes*. The right *MAT* flanking domain harbouring the genes *SLA2*, *APC5*, and *SAICAR5* appeared to be conserved, and at the opposite side in the left flanking area of both species the *APN2* and other hypothetical proteins were organized in synteny (Fig. 7). Gene content within the *MAT* locus diverges in the *Cyphellophoraceae*: *Cyphellophora europaea* has *MAT1-1* and *MAT1-5* configuration, while *Phialophora attae* harbours the *MAT1-2* gene.

The structure of the *MAT* locus of *Herpotrichiellaceae* deviates from that of most other members of *Eurotiomycetes*. We observed an expansion or collapse of the canonical *MAT* structure compared to model species in, for example, *Aspergillus*. The flanking site of the *MAT* genes of some BY was inflated with the accumulation of novel genes or was even unrelated to the *MAT* locus in other ascomycetes, which suggests a low selective pressure in this important genomic region within the family (Fig. 7). *Exophiala aquamarina* in the salmonis-clade had a heterothallic *MAT* locus structure with the *MAT1-1* gene, as well as flanking genes *SLA2*, *VPS13*, and *APN2* conserved in synteny with other *Eurotiomycetes*. The heterothallic *MAT* locus structure of *E. mesophila* lacked this structure. The right flanking area of *E. mesophila* showed homology and structural conservation with *SLA2* and *VPS13* genes of *E. aquamarina*, but lacked synteny in the left flanking region of the *MAT* locus (Fig. 7). No homology at the left flank of the *MAT* locus was detected between the two species. In addition, the *APN2* gene was located in another scaffold of *E. mesophila*, unrelated to the *MAT* locus. Within the dermatitidis-clade we detected an expansion of the *MAT* locus, which followed a speciation process of the three members of this clade. *Exophiala dermatitidis* is placed as the basal taxon of the dermatitidis-clade and presents a well-conserved, heterothallic *MAT* structure with other *Eurotiomycetes* (Fig. 8). On the other hand, we detected a chromosomal expansion at the right flanking site of both *Capronia* homothallic *MAT* loci, which was followed by gene inflation at this locus. This locus has some peculiar features. First, we identified a novel *MAT* gene that is found within the *MAT* locus only in those three species (HMPREF1120_08861 / A1O3_06090 / A1O1_07968). Second, within the canonical *SLA2-APN2* *MAT* locus structure, unique genes were detected within each of the three species, with the highest frequency in *Ca. epimyces*, since this has a larger *SLA2-APN2* genomic range. We also detected an expansion of the *MAT* locus that is followed by a speciation process with acquisition and inflation of genes in the *Exophiala* species of the jeanselmei-clade, *E. xenobiotica*, *E. spinifera*, and *E. oligosperma* (Fig. 9). Frequent appearance of new and family-specific genes is observed throughout the *Herpotrichiellaceae* along the mating type genes, which might be a source of adaptive novelties of mating regulators.

Exophiala sideris is the most basal species in the jeanselmei-clade and its *MAT* locus structure followed the classical *SLA2-APN2* configuration. However, we detected a fused *MAT1-1/MAT1-2* gene configuration in this species (Fig. S11). Protein classification analysis revealed that both α -box and HMG domains are present within a single mating regulator gene, leading us to hypothesize this as an unusual gene fusion event potentially giving a homothallic status to this species. The protein was blasted against the Conserved Domain Database (CDD) (Marchler-Bauer *et al.* 2011) in order to achieve *MAT* gene configuration common to fungi, as found e.g. in the homothallic ascomycetes *Curvularia homomorpha*, *Bipolaris luttrellii*, and *Penicillium rubens* (Fig. S11). The disposition of both α -box and HMG domains varies across the species panel analysed, either being separated along the gene or fused, where mostly HMG binding sites are found within the α -box domain (Fig. S11). The latter case led us to speculate that HMG insertions could be an atavism from an ancient homothallic state, since the majority of the gene sequence is related to *MAT1-1*, or it could be a product of gene fusion and unequal crossing over of two opposite mating type strains. This last scenario confirms earlier reports where cryptic homothallism was proven to occur in *Curvularia homomorpha* and *Bipolaris luttrellii* (Yun *et al.* 1999). Possibly the fused *MAT1-1/MAT1-2* also plays a role in cryptic homothallism of our species under study. Homothallism as an ancestral state was demonstrated in the carrionii-clade, which differed from what was observed in the jeanselmei- and dermatitidis-clades (Fig. 10): *Capronia semiimmersa* harbours both *MAT1-1* and *MAT1-2* genes in a single haploid genome. In addition, these species exhibits an apparent expansion of the *MAT* locus in that the classical *SLA2-APN2* configuration was not found, while new genes were detected down/upstream the *MAT* genes (Fig. 10). On the other hand, the heterothallic species *Cl. carrionii* and *Cl. yegresii* displayed the *SLA2-APN2* structure, and new carrionii-clade-specific genes were detected along with the *MAT* genes. In addition, we detected a *Cl. carrionii*-specific gene acquisition within the *MAT* locus as represented by the yellow boxes in Fig. 10.

The most degenerated *MAT* locus structure within the *Herpotrichiellaceae* was found within the bantiana-clade. *Cladophialophora bantiana* (*MAT1-1*) and *Cl. psammophila* (*MAT1-2*) shared a large degree of synteny at the left side of the *MAT* genes extending to the *SLA2* gene (Fig. 11). We also detected unique and shared genes between this specific *Herpotrichiellaceae* clade, represented by yellow boxes in Fig. 11. At the right flank of the *MAT* genes, *APN2* are poorly conserved between these two species. The *APN2* gene is assembled in a scaffold different from that of the *MAT* genes. The remaining species of the bantiana-clade, *Fonsecaea pedrosoi*, *F. multimorphosa*, and *Cladophialophora immunda* did not share any synteny at the flanking regions of the *MAT* genes.

Overall, we detected a low selective pressure within the *MAT* locus structure of *Chaetothyriales*, compared to other *Eurotiomycetes* (Coppin *et al.* 1997, Debuchy *et al.* 2010, Lee *et al.* 2010, Burmester *et al.* 2011). The species-specific, non-

characterised genes and gene duplications near the *MAT* genes are unique to *Chaetothyriales*. Despite the presence of components of the mating/pheromone-response pathway and their respective domains among *Chaetothyriales*, we hypothesize that due to the low selection of the *MAT* locus, those domains could represent an alternative system for generating diversity via parasexuality. The parasexual cycle has not been explored or characterised in any species of *Chaetothyriales*. Parasexuality is a process triggered by cell-cell fusion and ploidy reduction through random chromosome loss and has been reported in various filamentous fungi including *Aspergillus nidulans*, *Neurospora crassa*, and *Podospora anserina* (Pontecorvo 1956, De Serres 1962, Labarere & Bernet 1977). Undifferentiated vegetative cells undergo haploid cell fusion and produce heterokaryons, as with aberrant ploidy due to mitotic crossing-over (Tolmsoff 1983). Cell compatibility is dependent on a combination of loci known as heterokaryon (*het*) incompatibility loci (allorecognition loci) (Saupe & Glass 1997, Zhao *et al.* 2015). When incompatible, the vegetative cells undergo genetically programmed cell death (Glass *et al.* 2000). There is strong evidence that recombination can be triggered by a parasexual cycle in some of the consistently asexual BYs: **(1)** Based on gene family evolution analysis of BY, we identified a dramatic increase of *het*-containing proteins in most BY genomes. **(2)** The expansion of *het* proteins in BYs exceeds the number of allorecognition loci in *N. crassa* or *Aspergillus* species (Table S12). **(3)** Random gene duplication across BY genomes, which could be linked to impaired mitotic chromosomal reduction via aneuploidy.

With few exceptions, *het*-containing proteins are expanded in most BY genomes (Table S12). While species of *Eurotiales* harbour 2–12 *het*-containing proteins, in the *Chaetothyriales* the numbers range from a single copy in *E. dermatitidis* and *Cyphellophora europaea* to 134 copies in *Cl. psammophila*. Clustering analysis via CLANS of *het*-containing proteins (PF06985/IPR010730 - Pfam/InterPro) of 23 black yeasts, *Onygenales*, *Eurotiales*, and *N. crassa* did not show any significant sub-cluster within PF06985/IPR010730 containing genes. Alignment of the 1439 *het*-containing proteins in order to access the phylogenetic distribution did not return well-conserved alignment blocks due to high sequence dissimilarity. In the attraction graphs of the PF06985/IPR010730 family (Fig. 12), four clusters within *het*-containing proteins were visually defined in order to narrow down alignment discrepancies. We extracted the sequences related to each of the four identified groups and protein alignment was performed for phylogenetic analysis. All predicted *het* containing proteins of *N. crassa* (Zhao *et al.* 2015) were included, among which were three *het* loci, viz. *tol*, *het-6*, and *pin-c*. Phylogenetic analysis shows that most *het*-expanded BY harbour orthologs of well-characterised *Neurospora tol*, *het-6*, and *pin-c* (Fig. S12). We also identified a cluster of proteins that were related to the HET-E/D/R loci in *Podospora anserina* (Fig. S12). Beyond the *het* domain, this particular group of proteins display a GTP binding site followed by WD40 repeats, which play an important role in specificity of vegetative incompatibility in the *P. anserina* parasexual cycle (Espagne *et al.* 2002). BY genomes display a vast repertoire of heterokaryon incompatibility proteins and mechanisms of sexual or parasexual recombination, which needs further investigation.

DISCUSSION

Black yeasts and similar fungi in the order *Chaetothyriales* are known for their morphological plasticity, asexual diversity, and divergent habitat choice. To date (01-01-2016), 23 species of the order have had their genomes sequenced (Fig. 1). The order contains four or five families according to R blov  *et al.* (2013) who upgraded the “europaea-clade” to family level (Fig. 1). Fig. 2 shows a phylogenetic tree of all available species based on LSU-sequences, which is as yet the only parameter alignable over the entire order. Two ecological, highly speciose groups affiliated to the *Chaetothyriales* have recently been detected but as yet have not been formally named: asexual species with ant-associated ecology and those parasitizing on lichens (Muggia *et al.* 2013, 2016). In addition, many described *Capronia* species (Barr 1972, Aptroot *et al.* 1997, Etayo *et al.* 2013) have not been genotyped. Some of the lichen-pathogens produce well-recognisable sexual morphs with single, small setose cleistothecia with pale to brown, septate ascospores resembling *Capronia* or *Trichomerium*, underlining that the sexual morphs in the order, quite in contrast to the asexual morphs, show little variation. Judging from the above, the *Chaetothyriales* in the phylogenetic tree of Fig. 2 show severe defects in taxon sampling. Therefore it is difficult to reconstruct a reliable phylogeny with ancestral and derived families in the correct position. Phylogenomic data are thus far available for *Herpotrichiellaceae* and *Cyphellophoraceae* only.

Species of *Chaetothyriales* can be found on phanerogam leaf litter and plant debris, but in contrast to common litter fungi such as *Alternaria* and *Cladosporium*, decomposed, tannin-rich material is mostly preferred. Species selectively grow with the presence of aromates and etheric oils, e.g., on babassu coconut shells, which contain a remarkable diversity of black yeasts (Nascimento *et al.* 2016b). Many species even seem to prefer artificial, human-made habitats, such as gasoline tanks (Isola *et al.* 2013) and toxic mine waste rich in heavy metals (Seyedmousavi *et al.* 2011). Several studies have indicated that herpotrichiellaceous black yeasts and their filamentous counterparts are potent degraders of toxic monoaromates and are frequently found inhabiting industrial bio-filters (Middelhoven *et al.* 1989, Middelhoven 1993, Cox *et al.* 1997, Prenafeta-Bold  *et al.* 2006). This property is observed in members of nearly all clades (Woertz *et al.* 2001, de Hoog *et al.* 2006, Badali *et al.* 2011, Seyedmousavi *et al.* 2011). Phenolic and indolic compounds are substrate units for melanin formation, and the production of this pigment ultimately results from their oxidative polymerization (Jacobson 2000, Plonka & Grabacka 2006, Vavricka *et al.* 2010).

Numerous additional studies have reported the presence of clinical and non-clinical species in oil-related environments (Phillips *et al.* 1998, Prenafeta-Boldú *et al.* 2001, 2006, Sterflinger & Prillinger 2001), and noted preference of creosoted wood over untreated wood (Seyedmousavi *et al.* 2011, Döğen *et al.* 2013a,b, Gümräl *et al.* 2014). The fungi become nearly the sole colonizers when the material contains toxic hydrocarbons, e.g., on creosoted telephone poles and railway sleepers (Gümräl *et al.* 2014).

Several possible routes of aromatic hydrocarbon metabolism have become known in black yeast-like fungi (Cox *et al.* 1996). Among these the degradation of benzene derivatives via phenylacetate and homogentisate seems to be one of the most important pathways in the family *Herpotrichiellaceae* (Gunsch *et al.* 2005). Overexpression of the genes 2-hydroxy phenylacetate (PHA) and homogentisate 1,2-dioxygenase (HGD) when the fungus is grown in the presence of ethylbenzene, supports the involvement of these enzymes in organic compound degradation (Gunsch *et al.* 2005). It has also been demonstrated that genes of catabolic pathways, which may enhance survival under different environmental conditions, are physically clustered preserving gene order and orientation (Keller & Hohn 1997). This organization might favour the co-inheritance and the co-expression of multiple enzymes, which handle toxic intermediate compounds (Tako & Rook 2012, McGary *et al.* 2013) and suggests an essential role for this ability in *Herpotrichiellaceae*. Regarding the phenolic compound catabolism, homologs of the styrene pathway were found present in the species studied, except in *Capronia coronata*: this species lacks the genes coding to 4-hydroxyphenylpyruvate dioxygenase and maleylacetoacetate isomerase. This suggests that across the analysed black yeasts, only *Capronia coronata* would not be able to synthesize pyomelanin via the accumulation of homogentisate.

Remarkably, the same species described above can also be found in clear water environments that are very poor in nutrients. For example, *Exophiala dermatitidis* on the one hand occurs on creosoted wood (Döğen *et al.* 2013b) and in gasoline (Isola *et al.* 2013), but it is also common in steambath facilities (Matos *et al.* 2002), hot springs (Sudhadham *et al.* 2008) and dishwashers (Zalar *et al.* 2011). This strongly suggests that the natural competitive abilities of these fungi are very low, so that they evade confrontation with other microorganisms and escape in hostile environments (de Hoog 1993). Gostincar *et al.* (2012) classified *E. dermatitidis* as a polyextremotolerant fungus.

The above description holds true for the derived family of *Chaetothyriales*, the *Herpotrichiellaceae*. The origin of this ecology might be found in the life style of members of ancestral families, *Chaetothyriaceae*, *Epibryaceae*, and *Trichomeriaceae*. In the general phylogeny of Fig. 1, numerous members are epiphytic on plants, occurring as sooty moulds (Chomnunti *et al.* 2012b) or as rock-inhabiting fungi (Isola *et al.* 2016). These habitats require similar abilities as described above to cope with conditions that suppress most competitors, e.g., lack of nutrients, dryness, or extreme and changing temperatures (Middelhoven 1993, Vicente *et al.* 2008, Zhao *et al.* 2010a). A number of species have been isolated from green plants and have been regarded as host-specific plant pathogens, e.g., *Cladophialophora hostae* (Crous *et al.* 2007), *Exophiala eucalyptorum* (Crous *et al.* 2007), or *Metulocladosporiella musae* (Crous *et al.* 2006). CAZyme families, involved in the degradation of plant material, do not seem to play a major role in the black yeast-like fungi, as most of them lack the pectinases PL1, PL3, PL4, PL7, PL9, and PL10 (Table S10). Comparable depletions have been reported in species of *Onygenales*, which contain numerous obligate pathogens of humans and other vertebrates, while they are present in Eurotiales, with e.g. *Aspergillus fumigatus* essentially being a degrader of plant debris. Only the *Epibryaceae*, which have recently been associated with *Chaetothyriales* (Gueidan *et al.* 2014) after they had been regarded as members of *Dothideomycetidae* for decades (Stenroos *et al.* 2010), are known biotrophs. However, ancestral clades in *Chaetothyriales* including *Epibryaceae* show long branches (Fig. 2) and their affiliation with the order may be due to incomplete taxon sampling.

Voglmayr *et al.* (2011) isolated a large number of undescribed black fungi from ant domatia and cartons which appeared to be closely related to the *Chaetothyriales*. Ants and fungi have close symbiont relationships. The ecological roles of chaetothyrialean symbionts appear to be different between domatia and carton associations (Voglmayr *et al.* 2011). In the domatia they play important roles such as in recycling ant waste, and there is also evidence that the ants feed on the fungi, contributing to rapid recycling of nitrogen in the tripartite symbiosis of ant, plant and fungus (Little & Currie 2008, Defosse *et al.* 2011, Blatrix *et al.* 2012). In the carton association, ant tunnels or nests are largely made of black fungal material. It has been hypothesized that the fungus serves as building material (Lauth *et al.* 2011) and that the fungal layer on the carton walls could act as mechanical protection against radiation, humidity and microbial decomposition (Mayer & Voglmayr 2009, Zakharova *et al.* 2013), enhancing the durability. Commonly several black species co-occur on the same carton, forming complex associations, which rely on constant maintenance and care by the ants. Most carton species lack conidiation. In domatia a rather specific association with the host may be observed, the fungi producing a dense mat inside the domatium. These species are hyaline to light brown and show conidiation. Ants possess a great arsenal of exocrine glands (Moglich *et al.* 1974, Attygalle *et al.* 1989, Poulsen *et al.* 2002, Fernandez-Marin *et al.* 2006) secreting organic compounds that are effective against fungi and bacteria (Schlüns & Crozier 2009). Some species of leaf-cutting ants exude antimicrobial flavonoid and tannin-like compounds and communicate by aliphatic hydrocarbons (Brandt *et al.* 2009). *Chaetothyriales* have been shown to use toxic compounds such as aromatic hydrocarbons as unique nutritional carbon sources (Prenafeta-Boldú *et al.* 2006, Zhao *et al.* 2010a), which thus act as key selective agents promoting the dominance of *Chaetothyriales* in ant nests. The evolutionary origin of *Formicinae* dates back to Cretaceous times, around 100 MYA. Given the large extant diversity of *Formicinae*, as well as of associated *Chaetothyriales*, it

seems possible that ants and black yeast-like fungi have diversified in concert. We estimated that the common ancestor of *Herpotrichiellaceae-Cyphellophoraceae* emerged around 75–50 MYA, shortly after the Cretaceous-Paleogene (K-Pg) extinction event. In a similar study, Gueidan *et al.* (2011) calculated the ancestral groups of *Chaetothyriales* with a rock-inhabiting life-style and lichenised *Verrucariales* around 250 MYA. *Verrucariales* might have been the first to colonise barren rock after the meteor impact that marked the transition from Perm to Trias. Early *Chaetothyriales* were thought to be hyperparasites on lichens (Gostinčar *et al.* 2012) lacking an algal component. Lichens produce large amounts of toxic metabolites, and thus the pathogens must have been able to cope with harsh climatic conditions as well as with life in toxic habitats. This may have been the period where early *Chaetothyriales* developed stress tolerance, nutritional oligotrophism, and physiological versatility to survive the wide array of toxic secondary metabolites produced by the lichens (Gostinčar *et al.* 2010).

With these ecological and evolutionary speculations, two factors are of particular interest: melanin and action of the cytochrome p450 enzymes. The presence of eumelanin produced via the DHN and DOPA pathways, and pyromelanins via L-tyrosine degradation pathway (Alviano *et al.* 1991, Sun *et al.* 2011, Eisenman & Casadevall 2012, Li *et al.* 2016) are fundamental to the obligatory melanisation of the cell wall to enhance stress tolerance. Melanised fungi are resistant to environmental challenges found particularly in extreme habitats, including irradiation, nutrient depletions, and high temperature (Rosas & Casadevall 1997); this matches well with the conditions of a rock-inhabiting lifestyle. The melanised fungi are even able to survive in radioactive environments. Fungi growing on surfaces with direct sunlight exposure are highly adapted to cope with ionizing radiation via the constitutive presence of melanin, which acts as energy transduction molecules (Dadachova & Casadevall 2008). Melanised *Exophiala dermatitidis* cells exposed to ionizing radiation grow faster than non-exposed cells, suggesting a critical role of irradiated melanin and its conversion as a source of energy in herpotrichiellaceous fungi (Dadachova *et al.* 2007). Their energy transduction is multifunctional, also playing an essential role in resistance to oxidative burst of vertebrate phagocytes (Henson *et al.* 1999, Jacobson 2000, Eisenman & Casadevall 2012).

Melanins can also act as scavengers of free and oxidative radicals, are cross-linked to fungal cell wall carbohydrates, and also interact with surrounding molecules. These black pigments may therefore have a protective function against natural predators, such as amoebae (Nosanchuk & Casadevall 2003, de Almeida-Paes *et al.* 2012). In the most derived family, the *Herpotrichiellaceae*, the amoebic counterpart may have become the mammalian host's innate immune phagocyte, conferring protection against free radicals of host immune cell oxidative burst (Little & Currie 2008, Defosse *et al.* 2011, Blatrix *et al.* 2012). Melanins thus have become a potential virulence factor. Indeed, we witness the largest number of systemic opportunistic species on humans and cold-blooded animals in the *Herpotrichiellaceae*, while this behaviour is nearly absent from other families, with *Arthrocladium fulminantes* in the *Trichomeriaceae* as the only exception (Nascimento *et al.* 2016a).

Very little is known about the cell wall organization in BY and its dynamic composition. Loss of cell wall alpha-glucan synthase appears to be specific to *Exophiala dermatitidis* and the two outgroups *Verruconis gallopava* and *Coniosporium apollinis*. Other enzymes involved in 1,3-alpha-glucan processing are missing from remaining black yeast species studied. In contrast, the presence of the α -amylases, believed to be involved in the formation and/or modification of α -glucans (van der Kaaij *et al.* 2007), suggests that BY carry a cell wall that deviates from that of other filamentous fungi. Importantly, some recent studies have shown that the chronicity observed in chromoblastomycosis is due to a failure of pattern recognition receptor (PRR) costimulation (van der Kaaij *et al.* 2007). For example, innate recognition of *F. pedrosoi* is mediated by C-type lectin receptors (CLRs), but not by Toll-like receptors (TLRs), triggering an inadequate protective inflammatory response and leading to chronic infection (van der Kaaij *et al.* 2007). TLRs can recognize pathogen-associated molecular patterns (PAMPs), such as α -glucans in fungi (Takeda *et al.* 2003). We therefore speculate that BY genetic variation associated with cell wall composition, the main source of PAMPs, might affect the pattern of recognition of invading pathogens by the host. Indeed, enzymatic treatment to modify α -glucans from the conidial surface has been reported to decrease the phagocytic index in other ascomycetes (Bittencourt *et al.* 2006). Further studies will provide a better understanding of the role of α -glucans in the induction of innate immune response as well as its structural organization in black yeasts. No specific virulence differences were found between closely related, pathogenic versus environmental siblings, e.g. between *Cladophialophora bantiana* / *Cl. psammophila*, and between *Cladophialophora carrionii* / *Cl. yegresii*. It may be concluded that pathogenicity of black fungi is primarily of opportunistic nature, enhanced by the combination of extremotolerance and assimilative abilities of aromatic compounds, similar to pathogenicity in *Cryptococcus*.

Genetic diversity plays an important role in the adaptation of fungal populations to changing environments (Milgroom 1996, Heitman 2006, Giraud *et al.* 2010). Increased genotypic variation allows some individuals in a given population to inherit variations of alleles that are more suitable for a specific condition such as virulence (Engering *et al.* 2013). Genetic diversity is favoured by recombination that positively eliminates deleterious alleles that have accumulated during clonal development (Heitman 2006, Barton 2010). The two main sources of recombination in ascomycetes are sexual and parasexual reproduction (Calo *et al.* 2013). Sexual reproduction in those fungi is orchestrated by the mating type locus (*MAT1-1* and/or *MAT1-2*), which codify for transcription factors (α -box and HMG, respectively) that regulate genes required for mating and meiosis (Coppin *et al.* 1997). Two mating recognition systems are well described in *Ascomycota*: homothallic (self-fertile) species carry both mating-type alleles (*MAT1-1* / *MAT1-2* genes) in a single haploid genome, and sexual reproduction takes place in a single individual.

Heterothallic (self-sterile) fungi are species that carry a single allele (*MAT1-1* or *MAT1-2*) per haploid genome and need an opposite mating-type for sexual reproduction (Debuchy *et al.* 2010, Lee *et al.* 2010, Ni *et al.* 2011). The other main source of recombination in fungi is the parasexual cycle, where meiosis and development of sexual structures remain absent (Pontecorvo 1956). This non-sexual mechanism is governed and controlled by the *het* locus (heterokaryon incompatibility) that confers vegetative recognition of some filamentous ascomycetes (Glass *et al.* 2000). This process is initiated by cytoplasmic fusion in which different nuclei and cytoplasmic organelles co-occupy the same cellular space. Nuclear fusion takes place producing a diploid nucleus (karyogamy), which is, however, unstable and produces segregants by recombination, evoking the mitotic crossing-over followed by haploidisation.

There are two direct indications that recombination takes place in BY. First, the *Capronia* sexual morph is a homothallic (self-fertile) genus and is polyphyletic, distributed over *Herpotrichiellaceae* and *Cyphellophoraceae* (Untereiner 1995, Untereiner & Naveau 1999), and the *Trichomeriaceae* have, morphologically, a very similar sexual morph in *Trichomerium* (Chomnunti *et al.* 2012a). Second, by *in silico* methods, recombination has been reported to occur in *Cladophialophora carrionii* (Deng *et al.* 2015). However, as most species of *Chaetothyriales* lack a known sexual morph, only asexual morphs have been recognised. This leads us to hypothesize the following options: (1) species may lack a genomic apparatus for sexual reproduction, (2) species may be purely heterothallic but with cryptic sex taking place under specific conditions, or (3) species may have genomic signatures for a parasexual cycle under *het* locus control. In addition, we have identified a potential fused *MAT1-1/MAT1-2* gene configuration in *Exophiala sideris* disposing both α -box and HMG domains (Fig. 9, Fig. S11). Cryptic homothallism was proven to occur in *Curvularia homomorpha* and *Bipolaris luttrellii*, which are ascomycete species presenting similar configurations as herein reported for *Exophiala sideris* (Fig. S11). Another remarkable finding was the occurrence of a mating regulator that codifies for a transcription factor carrying a DNA binding homeodomain motif in *V. gallopava* (Fig. 7). This domain is largely found in yeasts in *Ascomycota* and *Basidiomycota* (Martin *et al.* 2010) and, according to (Lee *et al.* 2010) this domain was lost during speciation of *Pezizomycotina*. We herein hypothesize that the HD domain is a potential mating regulator in *Venturiales* (Fig. 7) and suggest this domain was maintained more recently in *Eurotiomycetes* speciation.

ACKNOWLEDGEMENTS

Rumsais Blatrix and Veronika Mayer are acknowledged for providing ecological data on ant-association, and Francesc Prenafeta-Boldú on hydrocarbon assimilation. We thank the Broad Institute Genomics Platform for generating the DNA and RNA sequence for this study, and Sinéad Chapman and Susanna Hamilton for coordinating the sequencing. We also thank the National Institute of Science and Technology of Nitrogen Fixation/CNPq/MCT and Fundação Araucária for financial support. This work was supported by the National Human Genome Research Institute, grant number U54HG003067 to the Broad Institute and CNPq/FAP-DF, grant number 193000569/2009 to the University of Brasília and LNCC. LFM is supported by a Science without Borders fellowship (grant number: 1331-13-2), CAPES-Brazil [capes.gov.br]. The project was also funded by the Deanship of Scientific Research (DSR) at King Abdulaziz University, Jeddah, under grant no. 30-130-36-RG; the authors acknowledge DSR for technical and financial support. AM and AG were supported by 2012/07/D/INZ2/04286 grant from the National Science Centre (Poland).

REFERENCES

- Alviano CS, Farbiarz SR, De Souza W, *et al.* (1991). Characterization of *Fonsecaea pedrosoi* melanin. *Journal of General Microbiology* **137**: 837–844.
- Amselem J, Cuomo CA, van Kan JA, *et al.* (2011). Genomic analysis of the necrotrophic fungal pathogens *Sclerotinia sclerotiorum* and *Botrytis cinerea*. *PLoS Genetics* **7**: e1002230.
- Aptroot A, Diederich P, Sérusiaux E, *et al.* (1997). Lichens and lichenicolous fungi *Bibliotheca Lichenologica* **64**: 1–220.
- Attygalle AB, Siegel B, Vostrowsky O, *et al.* (1989). Chemical composition and function of metapleural gland secretion of the ant, *Crematogaster deformis* smith (*Hymenoptera: Myrmicinae*). *Journal of Chemical Ecology* **15**: 317–328.
- Badali H, Gueidan C, Najafzadeh MJ, *et al.* (2008). Biodiversity of the genus *Cladophialophora*. *Studies in Mycology* **61**: 175–191.
- Badali H, Prenafeta-Boldú FX, Guarro J, *et al.* (2011). *Cladophialophora psammophila*, a novel species of *Chaetothyriales* with a potential use in the bioremediation of volatile aromatic hydrocarbons. *Fungal Biology* **115**: 1019–1029.
- Baldrian P (2006). Fungal laccases – occurrence and properties. *FEMS Microbiology Reviews* **30**: 215–242.
- Barr ME (1972). *Preliminary studies on the Dothideales in temperate North America*. University of Michigan Herbarium, United States of America: 525–664.
- Barton NH (2010). Mutation and the evolution of recombination. *Philosophical Transactions of the Royal Society* **365**: 1281–1294.
- Batista AC & Ciferri R (1962). The *Chaetothyriales*. *Beihefte zur Sydowia* **3**: 1–129.
- Birney E, Clamp M & Durbin R (2004). GeneWise and Genomewise. *Genome Research* **14**: 988–995.
- Bittencourt VC, Figueiredo RT, da Silva RB, *et al.* (2006). An alpha-glucan of *Pseudallescheria boydii* is involved in fungal phagocytosis and Toll-like receptor activation. *The Journal of Biological Chemistry* **281**: 22614–22623.
- Blatrix R, Djieto-Lordon C, Mondolot L, *et al.* (2012). Plant-ants use symbiotic fungi as a food source: new insight into the nutritional ecology of ant-plant interactions. *Proceedings of the Royal Society* **279**: 3940–3947.
- Borek D, Michalska K, Brzezinski K, *et al.* (2004). Expression, purification and catalytic activity of *Lupinus luteus* asparagine beta-amidohydrolase and its *Escherichia coli* homolog. *European Journal of Biochemistry* **271**: 3215–3226.
- Bowman SM, Free SJ (2006). The structure and synthesis of the fungal cell wall. *Bioessays* **28**: 799–808.
- Brandt M, van Wilgenburg E, Sulc R, *et al.* (2009). The scent of supercolonies: the discovery, synthesis and behavioural verification of ant colony recognition cues. *BMC Biology* **7**: 71.

- Bulawa CE, Miller DW, Henry LK, *et al.* (1995). Attenuated virulence of chitin-deficient mutants of *Candida albicans*. *Proceedings of the National Academy of Sciences of the United States of America* **92**: 10570–10574.
- Burmester A, Shelest E, Glockner G, *et al.* (2011). Comparative and functional genomics provide insights into the pathogenicity of dermatophytic fungi. *Genome Biology* **12**: R7.
- Calo S, Billmyre RB, Heitman J (2013). Generators of phenotypic diversity in the evolution of pathogenic microorganisms. *PLOS Pathogens* **9**: e1003181.
- Cantarel BL, Coutinho PM, Rancurel C, *et al.* (2009). The Carbohydrate-Active EnZymes database (CAZy): an expert resource for Glycogenomics. *Nucleic Acids Research* **37**: D233–D238.
- Capella-Gutierrez S, Silla-Martinez JM & Gabaldon T (2009). TrimAl: a tool for automated alignment trimming in large-scale phylogenetic analyses. *Bioinformatics* **25**: 1972–1973.
- Casadevall A, Steenbergen JN & Nosanchuk JD (2003). 'Ready made' virulence and 'dual use' virulence factors in pathogenic environmental fungi – the *Cryptococcus neoformans* paradigm. *Current Opinion in Microbiology* **6**: 332–337.
- Chen Z, Martinez DA, Gujja S, *et al.* (2014). Comparative genomic and transcriptomic analysis of *Wangiella dermatitidis*, a major cause of phaeohiphymycosis and a model black yeast human pathogen. *G3: Genes, Genomes, Genetics* **4**: 561–578.
- Chomnunti P, Bhat DJ, Jones EBG, *et al.* (2012a). *Trichomeriaceae*, a new sooty mould family of *Chaetothyriales*. *Fungal Diversity* **56**: 63–76.
- Chomnunti P, Ko TW, Chuakeatiro E, *et al.* (2012b). Phylogeny of *Chaetothyriaceae* in northern Thailand including three new species. *Mycologia* **104**: 382–395.
- Conant GC & Wolfe KH (2008). Turning a hobby into a job: how duplicated genes find new functions. *Nature Reviews Genetics* **9**: 938–950.
- Coppin E, Debuchy R, Amais S, *et al.* (1997). Mating types and sexual development in filamentous ascomycetes. *Microbiology and Molecular Biology Reviews* **61**: 411–428.
- Cox HH, Faber BW, van Heiningen WN, *et al.* (1996). Styrene metabolism in *Exophiala jeanselmei* and involvement of a cytochrome P-450-dependent styrene monooxygenase. *Applied and Environmental Microbiology* **62**: 1471–1474.
- Cox HH, Moerman RE, van Baalen S, *et al.* (1997). Performance of a styrene-degrading biofilter containing the yeast *Exophiala jeanselmei*. *Biotechnology and Bioengineering* **53**: 259–266.
- Crous PW, Braun U, Wingfield MJ, *et al.* (2009). Phylogeny and taxonomy of obscure genera of microfungi. *Persoonia* **22**: 139–161.
- Crous PW, Schroers HJ, Groenewald JZ, *et al.* (2006). *Metulocladosporiella* gen. nov. for the causal organism of *Cladosporium* speckle disease of banana. *Mycological Research* **110**: 264–275.
- Crous PW, Schubert K, Braun U, *et al.* (2007). Opportunistic, human-pathogenic species in the *Herpotrichiellaceae* are phenotypically similar to saprobic or phytopathogenic species in the *Venturiaceae*. *Studies in Mycology* **58**: 185–217.
- da Silva JP, Alviano DS, Alviano CS, *et al.* (2002). Comparison of *Fonsecaea pedrosoi* sclerotic cells obtained *in vivo* and *in vitro*: ultrastructure and antigenicity. *FEMS Immunology and Medical Microbiology* **33**: 63–69.
- da Silva MB, da Silva JP, Yamano SSP, *et al.* (2008). Development of natural culture media for rapid induction of *Fonsecaea pedrosoi* sclerotic cells *in vitro*. *Journal of Clinical Microbiology* **46**: 3839–3841.
- Dadachova E, Bryan RA, Huang X, *et al.* (2007). Ionizing radiation changes the electronic properties of melanin and enhances the growth of melanized fungi. *PLoS One* **2**, e457.
- Dadachova E & Casadevall A (2008). Ionizing radiation: how fungi cope, adapt, and exploit with the help of melanin. *Current Opinion in Microbiology* **11**: 525–531.
- de Almeida-Paes R, Nosanchuk JD & Zancopé-Oliveira RM (2012). Fungal melanins: biosynthesis and biological functions. *Nova Science Publishers* **77**–107.
- De Bie T, Cristianini N, Demuth JP, *et al.* (2006). CAFE: a computational tool for the study of gene family evolution. *Bioinformatics* **22**: 1269–1271.
- de Hoog GS (1993). Evolution of black yeasts: possible adaptation to the human host. *Antonie van Leeuwenhoek* **63**: 105–109.
- de Hoog GS (2014). Ecology and phylogeny of black yeast-like fungi: diversity in unexplored habitats. *Fungal Diversity* **65**: 1–2.
- de Hoog GS, Nishikaku AS, Fernandez-Zeppenfeldt G, *et al.* (2007). Molecular analysis and pathogenicity of the *Cladophialophora carrionii* complex, with the description of a novel species. *Studies in Mycology* **58**: 219–234.
- de Hoog GS, Vicente VA, Najafzadeh MJ, *et al.* (2011). Waterborne *Exophiala* species causing disease in cold-blooded animals. *Persoonia* **27**: 46–72.
- de Hoog GS, Zeng JS, Harrak MJ, *et al.* (2006). *Exophiala xenobiotica* sp. nov., an opportunistic black yeast inhabiting environments rich in hydrocarbons. *Antonie van Leeuwenhoek* **90**: 257–268.
- De Serres FJ (1962). Heterokaryon-incompatibility factor interaction in tests between *Neurospora* mutants. *Science* **138**: 1342–1343.
- Debuchy R, Berteaux-Lecellier V & Silar P (2010) Mating systems and sexual morphogenesis in ascomycetes. *Cellular and Molecular Biology of Filamentous Fungi*, 1–2.
- Defosse E, Djieto-Lordon C, McKey D, *et al.* (2011). Plant-ants feed their host plant, but above all a fungal symbiont to recycle nitrogen. *Proceedings of the Royal Society of London B* **278**: 1419–1426.
- Deng S, Tsui CK, Gerrits van den Ende AHG, *et al.* (2015). Global spread of human chromoblastomycosis is driven by recombinant *Cladophialophora carrionii* and predominantly clonal *Fonsecaea* species. *PLOS Neglected Tropical Diseases* **9**: e0004004.
- Desjardins CA, Champion MD, Holder JW, *et al.* (2011). Comparative genomic analysis of human fungal pathogens causing paracoccidioidomycosis. *PLoS Genetics* **7**: e1002345.
- Döbbeler P (1997). Biodiversity of bryophilous ascomycetes. *Biodiversity & Conservation* **6**: 721–738.
- Dögen A, Ilkit M, de Hoog GS (2013a). Black yeast habitat choices and species spectrum on high altitude creosote-treated railway ties. *Fungal Biology* **117**: 692–696.
- Dögen A, Kaplan E, Ilkit M, *et al.* (2013b). Massive contamination of *Exophiala dermatitidis* and *E. phaeomuriformis* in railway stations in subtropical Turkey. *Mycopathologia* **175**: 381–386.
- Edgar RC (2004). MUSCLE: multiple sequence alignment with high accuracy and high throughput. *Nucleic Acids Research* **32**: 1792–1797.
- Eisenman HC, Casadevall A (2012). Synthesis and assembly of fungal melanin. *Journal of Clinical Microbiology* **93**: 931–940.
- Engering A, Hogerwerf L & Slingenbergh J (2013). Pathogen-host-environment interplay and disease emergence. *Emerging Microbes & Infections* **2**: e5.
- Espagne E, Balhadere P, Penin ML, *et al.* (2002). HET-E and HET-D belong to a new subfamily of WD40 proteins involved in vegetative incompatibility specificity in the fungus *Podospora anserina*. *Genetics* **161**: 71–81.
- Etayo J, Flakus A, Kukwa M (2013). *Capronia paranectrioides* (*Herpotrichiellaceae*, *Ascomycota*), a new lichenicolous fungus from Bolivia. *The Lichenologist* **45**: 623–626.
- Feng B, Wang X, Hauser M, *et al.* (2001). Molecular cloning and characterization of WdPKS1, a gene involved in dihydroxynaphthalene melanin biosynthesis and virulence in *Wangiella* (*Exophiala*) *dermatitidis*. *Infection and Immunity* **69**: 1781–1794.
- Feng P, Lu Q, Najafzadeh MJ, *et al.* (2012). *Cyphellophora* and its relatives in *Phialophora*: biodiversity and possible role in human infection. *Fungal Diversity* **65**: 17–45.

- Fernandez-Marin H, Zimmerman JK, Rehner SA, *et al.* (2006). Active use of the metapleural glands by ants in controlling fungal infection. *Proceedings of the Royal Society of London B* **273**: 1689–1695.
- Finn RD, Clements J, Eddy SR (2011). HMMER web server: interactive sequence similarity searching. *Nucleic Acids Research* **39**: W29–37.
- Finn RD, Mistry J, Tate J, *et al.* (2010). The Pfam protein families database. *Nucleic Acids Research* **38**: D211–222.
- Fraser JA, Stajich JE, Tarcha EJ, *et al.* (2007). Evolution of the mating type locus: insights gained from the dimorphic primary fungal pathogens *Histoplasma capsulatum*, *Coccidioides immitis*, and *Coccidioides posadasii*. *Eukaryotic Cell* **6**: 622–629.
- Fu L, Niu B, Zhu Z, *et al.* (2012). CD-HIT: accelerated for clustering the next-generation sequencing data. *Bioinformatics* **28**: 3150–3152.
- Galagan JE, Calvo SE, Borkovich KA, *et al.* (2003). The genome sequence of the filamentous fungus *Neurospora crassa*. *Nature* **422**: 859–868.
- Gao L, Ma Y, Zhao W, *et al.* (2015). Three new species of *Cyphellophora* (*Chaetothyriales*) associated with sooty blotch and flyspeck. *PLoS One* **10**: e0136857.
- Garnica M, Nucci M & Queiroz-Telles F (2009). Difficult mycoses of the skin: advances in the epidemiology and management of eumycetoma, phaeohyphomycosis and chromoblastomycosis. *Current Opinion in Infectious Diseases* **22**: 559–563.
- Giraud T, Gladieux P, Gavrillets S (2010). Linking the emergence of fungal plant diseases with ecological speciation. *Trends in Ecology & Evolution* **25**: 387–395.
- Glass NL, Grotelueschen J, Metznerberg RL (1990). *Neurospora crassa* A mating-type region. *Proceedings of the National Academy of Sciences of the United States of America* **87**: 4912–4916.
- Glass NL, Jacobson DJ, Shiu PK (2000). The genetics of hyphal fusion and vegetative incompatibility in filamentous ascomycete fungi. *Annual Review of Genetics* **34**: 165–186.
- Goddard MR, Burt A (1999). Recurrent invasion and extinction of a selfish gene. *Proceedings of the National Academy of Sciences of the United States of America* **96**: 13880–13885.
- Gostincar C, Grube M, de Hoog S, *et al.* (2010). Extremotolerance in fungi: evolution on the edge. *FEMS Microbiology Ecology* **71**: 2–11.
- Gostincar C, Muggia L, Grube M (2012). Polyextremotolerant black fungi: oligotrophism, adaptive potential, and a link to lichen symbioses. *Frontiers in Microbiology* **3**: 390.
- Graherr MG, Haas BJ, Yassour M, *et al.* (2011). Full-length transcriptome assembly from RNA-Seq data without a reference genome. *Nature Biotechnology* **29**: 644–652.
- Grahl N, Puttikamonkul S, Macdonald JM, *et al.* (2011). *In vivo* hypoxia and a fungal alcohol dehydrogenase influence the pathogenesis of invasive pulmonary aspergillosis. *PLoS Pathogens* **7**: e1002145.
- Gueidan C, Aptroot A, da Silva Cáceres ME, *et al.* (2014). A reappraisal of orders and families within the subclass *Chaetothyriomycetidae* (*Eurotiomycetes*, *Ascomycota*). *Mycological Progress* **13**: 1027–1039.
- Gueidan C, Ruibal C, de Hoog GS, *et al.* (2011). Rock-inhabiting fungi originated during periods of dry climate in the late Devonian and middle Triassic. *Fungal Biology* **115**: 987–996.
- Gümral R, Tumgor A, Saracli MA, *et al.* (2014). Black yeast diversity on creosoted railway sleepers changes with ambient climatic conditions. *Microbial Ecology* **68**: 699–707.
- Gunsch CK, Cheng Q, Kinney KA, *et al.* (2005). Identification of a homogentisate-1,2-dioxygenase gene in the fungus *Exophiala lecanii-corni*: analysis and implications. *Applied Microbiology and Biotechnology* **68**: 405–411.
- Haas BJ, Delcher AL, Mount SM, *et al.* (2003). Improving the *Arabidopsis* genome annotation using maximal transcript alignment assemblies. *Nucleic Acids Research* **31**: 5654–5666.
- Haas BJ, Salzberg SL, Zhu W, *et al.* (2008). Automated eukaryotic gene structure annotation using EVidenceModeler and the Program to Assemble Spliced Alignments. *Genome Biology* **9**: R7.
- Haase G, Sonntag L, Melzer-Krick B, *et al.* (1999). Phylogenetic inference by SSU gene analysis of members of the *Herpotrichiellaceae*, with special reference to human pathogenic species. *Studies in Mycology* **43**: 80–97.
- Hamada N, Abe N (2010). Comparison of fungi found in bathrooms and sinks. *Biocontrol Science* **15**: 51–56.
- Heitman J (2006). Sexual reproduction and the evolution of microbial pathogens. *Current Biology* **16**: R711–725.
- Henson JM, Butler MJ, Day AW (1999). The dark side of the mycelium: melanins of phytopathogenic fungi. *Annual Review of Phytopathology* **37**: 447–471.
- Hyde KD, McKenzie EHC, KoKo TW (2011). Towards incorporating anamorphic fungi in a natural classification – checklist and notes for 2010. *Mycosphere* **2**: 88.
- Isola D, Selbmann L, de Hoog GS, *et al.* (2013). Isolation and screening of black fungi as degraders of volatile aromatic hydrocarbons. *Mycopathologia* **175**: 369–379.
- Isola D, Zucconi L, Onofri S, *et al.* (2016). Extremotolerant rock inhabiting black fungi from Italian monumental sites. *Fungal Diversity* **76**: 75–96.
- Iturriaga G, Suarez R, Nova-Franco B (2009). Trehalose metabolism: from osmoprotection to signaling. *International Journal of Molecular Sciences* **10**: 3793–3810.
- Jacobson ES (2000). Pathogenic roles for fungal melanins. *Clinical Microbiology Reviews* **13**: 708–717.
- Jones L, Riaz S, Morales-Cruz A, *et al.* (2014a). Adaptive genomic structural variation in the grape powdery mildew pathogen, *Erysiphe necator*. *BMC Genomics* **15**: 1081.
- Jones P, Binns D, Chang HY, *et al.* (2014b). InterProScan 5: genome-scale protein function classification. *Bioinformatics* **30**: 1236–1240.
- Jurka J, Kapitonov VV, Pavlicek A, *et al.* (2005). Repbase Update, a database of eukaryotic repetitive elements. *Cytogenetic and Genome Research* **110**: 462–467.
- Karuppaiyil SM & Szaniszló PJ (1997). Importance of calcium to the regulation of polymorphism in *Wangiella* (*Exophiala*) *dermatitidis*. *Journal of Medical and Veterinary Mycology* **35**: 379–388.
- Katoh K, Standley DM (2013). MAFFT multiple sequence alignment software version 7: improvements in performance and usability. *Molecular Biology and Evolution* **30**: 772–780.
- Keller NP, Hohn TM (1997). Metabolic pathway gene clusters in filamentous fungi. *Fungal Genetics and Biology* **21**: 17–29.
- Keller NP, Turner G, Bennett JW (2005). Fungal secondary metabolism – from biochemistry to genomics. *Nature Reviews Microbiology* **3**: 937–947.
- Kelly SL, Lamb DC, Baldwin BC, *et al.* (1997). Characterization of *Saccharomyces cerevisiae* CYP61, sterol delta22-desaturase, and inhibition by azole antifungal agents. *The Journal of Biological Chemistry* **272**: 9986–9988.
- Kimura N, Tsuge T (1993). Gene cluster involved in melanin biosynthesis of the filamentous fungus *Alternaria alternata*. *Journal of Bacteriology* **175**: 4427–4435.
- Korf I (2004). Gene finding in novel genomes. *BMC Bioinformatics* **14**: 5–59.
- Kuck P, Meusemann K (2010). FASconCAT: Convenient handling of data matrices. *Molecular Phylogenetics and Evolution* **56**: 1115–1118.
- Kumar S, Stecher G, Tamura K (2016). MEGA7: Molecular Evolutionary Genetics Analysis version 7.0 for bigger datasets. *Molecular Biology and Evolution* **33**: 1870–1874.
- Labarere J, Bernet J (1977). Protoplasmic incompatibility and cell lysis in *Podospora anserina*. I. Genetic investigations on mutations of a novel modifier gene that suppresses cell destruction. *Genetics* **87**: 249–257.

- Lamb DC, Kelly DE, Schunck WH, *et al.* (1997). The mutation T315A in *Candida albicans* sterol 14 α -demethylase causes reduced enzyme activity and fluconazole resistance through reduced affinity. *The Journal of Biological Chemistry* **272**: 5682–5688.
- Langfelder K, Streibel M, Jahn B, *et al.* (2003). Biosynthesis of fungal melanins and their importance for human pathogenic fungi. *Fungal Genetics and Biology* **38**: 143–158.
- Latgé JP (2007). The cell wall: a carbohydrate armour for the fungal cell. *Molecular Microbiology* **66**: 279–290.
- Le SQ, Gascuel O (2008). An improved general amino acid replacement matrix. *Molecular Biology and Evolution* **25**: 1307–1320.
- Lee SC, Ni M, Li W, *et al.* (2010). The evolution of sex: a perspective from the fungal kingdom. *Microbiology and Molecular Biology Reviews* **74**: 298–340.
- Lepesheva GI, Hargrove TY, Kleshchenko Y, *et al.* (2008). CYP51: a major drug target in the cytochrome P450 superfamily. *Lipids* **43**: 1117–1125.
- Li DM, de Hoog GS (2009). Cerebral phaeohyphomycosis – a cure at what lengths? *The Lancet Infectious Diseases* **9**: 376–383.
- Li L, Stoeckert CJ Jr., Roos DS (2003). OrthoMCL: identification of ortholog groups for eukaryotic genomes. *Genome Research* **13**: 2178–2189.
- Li XQ, Guo BL, Cai WY, *et al.* (2016). The role of melanin pathways in extremotolerance and virulence of *Fonsecaea* revealed by *de novo* assembly transcriptomics using Illumina paired-end sequencing. *Studies in Mycology* **83**: 1–18.
- Lian X, de Hoog GS (2010). Indoor wet cells harbour melanized agents of cutaneous infection. *Medical Mycology* **48**: 622–628.
- Lin L, Fang W, Liao X, *et al.* (2011). The MrCYP52 cytochrome P450 monooxygenase gene of *Metarhizium robertsii* is important for utilizing insect epicuticular hydrocarbons. *PLoS One* **6**: e28984.
- Little AE, Currie CR (2008). Black yeast symbionts compromise the efficiency of antibiotic defenses in fungus-growing ants. *Ecology* **89**: 1216–1222.
- Liu H, Kauffman S, Becker JM, *et al.* (2004). *Wangiella (Exophiala) dermatitidis* WdChs5p, a class V chitin synthase, is essential for sustained cell growth at temperature of infection. *Eukaryotic Cell* **3**: 40–51.
- Liu XQ (2000). Protein-splicing intron: genetic mobility, origin, and evolution. *Annual Review of Genetics* **34**: 61–76.
- Lomsadze A, Ter-Hovhannisyantsyan V, Chernoff YO, *et al.* (2005). Gene identification in novel eukaryotic genomes by self-training algorithm. *Nucleic Acids Research* **33**: 6494–6506.
- Lucking R, Huhndorf S, Pfister DH, *et al.* (2009). Fungi evolved right on track. *Mycologia* **101**: 810–822.
- Lupetti A, Danesi R, Campa M, *et al.* (2002). Molecular basis of resistance to azole antifungals. *Trends in Molecular Medicine* **8**: 76–81.
- Ma LA, Ibrahim AS, Skory C, *et al.* (2009). Genomic analysis of the basal lineage fungus *Rhizopus oryzae* reveals a whole-genome duplication. *PLoS Genetics* **5**: e1000549.
- Ma Z, Proffer TJ, Jacobs JL, *et al.* (2006). Overexpression of the 14 α -demethylase target gene (CYP51) mediates fungicide resistance in *Blumeriella jaapii*. *Applied and Environmental Microbiology* **72**: 2581–2585.
- Majoros WH, Pertea M, Salzberg SL (2004). TigrScan and GlimmerHMM: two open source ab initio eukaryotic gene-finders. *Bioinformatics* **20**: 2878–2879.
- Mandel MA, Barker BM, Kroken S, *et al.* (2007). Genomic and population analyses of the mating type loci in *Coccidioides* species reveal evidence for sexual reproduction and gene acquisition. *Eukaryotic Cell* **6**: 1189–1199.
- Marchler-Bauer A, Lu S, Anderson JB, *et al.* (2011). CDD: a Conserved Domain Database for the functional annotation of proteins. *Nucleic Acids Research* **39**: D225–229.
- Margulies M, Egholm M, Altman WE, *et al.* (2005). Genome sequencing in microfabricated high-density picolitre reactors. *Nature* **437**: 376–380.
- Martin T, Lu SW, van Tilbeurgh H, *et al.* (2010). Tracing the origin of the fungal alpha1 domain places its ancestor in the HMG-box superfamily: implication for fungal mating-type evolution. *PLoS One* **5**: e15199.
- Martinez DA, Oliver BG, Gräser Y, *et al.* (2012). Comparative genome analysis of *Trichophyton rubrum* and related dermatophytes reveals candidate genes involved in infection. *MBio* **3**: e00259–00212.
- Matos T, de Hoog GS, de Boer AG, *et al.* (2002). High prevalence of the neurotrope *Exophiala dermatitidis* and related oligotrophic black yeasts in sauna facilities. *Mycoses* **45**: 373–377.
- Mayer VE, Voglmayr H (2009). Mycelial carton galleries of *Azteca brevis* (Formicidae) as a multi-species network. *Proceedings of the Royal Society of London B* **276**: 3265–3273.
- McGary KL, Slot JC, Rokas A (2013). Physical linkage of metabolic genes in fungi is an adaptation against the accumulation of toxic intermediate compounds. *Proceedings of the National Academy of Sciences of the United States of America* **110**: 11481–11486.
- McGinnis MR (1983). Chromoblastomycosis and phaeohyphomycosis: new concepts, diagnosis, and mycology. *Journal of the American Academy of Dermatology* **8**: 1–16.
- Mendoza L, Karuppaiyl SM, Szaniszló PJ (1993). Calcium regulates *in vitro* dimorphism in chromoblastomycotic fungi. *Mycoses* **36**: 157–164.
- Metcalfe CJ, Casane D (2013). Accommodating the load: The transposable element content of very large genomes. *Mobile Genetic Elements* **3**: e24775.
- Middelhoven WJ (1993). Catabolism of benzene compounds by ascomycetous and basidiomycetous yeasts and yeast-like fungi. A literature review and an experimental approach. *Antonie van Leeuwenhoek* **63**: 125–144.
- Middelhoven WJ, de Hoog GS, Notermans S (1989). Carbon assimilation and extracellular antigens of some yeast-like fungi. *Antonie van Leeuwenhoek* **55**: 165–175.
- Milgroom MG (1996). Recombination and the multilocus structure of fungal populations. *Annual Review of Phytopathology* **34**: 457–477.
- Minh BQ, Nguyen MA, von Haeseler A (2013). Ultrafast approximation for phylogenetic bootstrap. *Molecular Biology and Evolution* **30**: 1188–1195.
- Mitchell A, Chang HY, Daugherty L, *et al.* (2015). The InterPro protein families database: the classification resource after 15 years. *Nucleic Acids Research* **43**: D213–221.
- Möglich M, Maschwitz U, Holldobler B (1974). Tandem calling: a new kind of signal in ant communication. *Science* **186**: 1046–1047.
- Moktali V, Park J, Fedorova-Abrams ND, *et al.* (2012). Systematic and searchable classification of cytochrome P450 proteins encoded by fungal and oomycete genomes. *BMC Genomics* **13**: 525.
- Möller EM, Bahnweg G, Sanderhann H, *et al.* (1992). A simple and efficient protocol for isolation of high molecular weight DNA from filamentous fungi, fruit bodies, and infected plant tissues. *Nucleic Acids Research* **20**: 6115–6116.
- Moreno LF, Stielow JB, de Vries M, *et al.* (2015). Draft genome sequence of the ant-associated fungus *Phialophora attae* (CBS 131958). *Genome Announcements* **3**.
- Muggia L, Fleischhacker A, Kopun T, *et al.* (2016). Extremotolerant fungi from alpine rock lichens and their phylogenetic relationships. *Fungal Diversity* **76**: 119–142.
- Muggia L, Gueidan C, Knudsen K, *et al.* (2013). The lichen connections of black fungi. *Mycopathologia* **175**: 523–535.
- Müller E, Petrini O, Fisher PJ, *et al.* (1987). Taxonomy and anamorphs of the *Herpotrichiellaceae* with notes on generic synonymy. *Transactions of the British Mycological Society* **88**: 63–74.
- Mullins JG, Parker JE, Cools HJ, *et al.* (2011). Molecular modelling of the emergence of azole resistance in *Mycosphaerella graminicola*. *PLoS One* **6**: e20973.
- Muñoz JF, Gauthier GM, Desjardins CA, *et al.* (2015). The dynamic genome and transcriptome of the human fungal pathogen *Blastomyces* and close relative *Emmonsia*. *PLoS Genetics* **11**: e1005493.

- Muszewska A, Taylor JW, Szczesny P, *et al.* (2011). Independent subfamilies expansions in fungi associated with animals. *Molecular Biology and Evolution* **28**: 3395–3404.
- Najafzadeh MJ, Sun J, Vicente VA, *et al.* (2011a). Molecular epidemiology of *Fonsecaea* species. *Emerging Infectious Diseases* **17**: 464–469.
- Najafzadeh MJ, Vicente VA, Sun J, *et al.* (2011b). *Fonsecaea multimorphosa* sp. nov., a new species of *Chaetothyriales* isolated from a feline cerebral abscess. *Fungal Biology* **115**: 1066–1076.
- Nascimento MM, Selbmann L, Sharifynia S, *et al.* (2016a). *Arthrocladium*, an unexpected human opportunist in *Trichomeriaceae* (*Chaetothyriales*). *Fungal Biology* **120**: 207–218.
- Nascimento MM, Vicente VA, Bittencourt JVM, *et al.* (2016b). Diversity of opportunistic black fungi on the hydrocarbon-rich environment of Babassu coconut shells. *Applied and Environmental Microbiology*. In press.
- Nelson DR (2009). The cytochrome p450 homepage. *Human Genomics* **4**: 59–65.
- Nepel M, Voglmayr H, Schonenberger J, *et al.* (2014). High diversity and low specificity of chaetothyrlean fungi in carton galleries in a neotropical ant-plant association. *PLoS One* **9**: e112756.
- Ngamskulrungrong P, Himmelreich U, Breger JA, *et al.* (2009). The trehalose synthesis pathway is an integral part of the virulence composite for *Cryptococcus gattii*. *Infection and Immunity* **77**: 4584–4596.
- Nguyen LT, Schmidt HA, von Haeseler A, *et al.* (2015). IQ-TREE: a fast and effective stochastic algorithm for estimating maximum-likelihood phylogenies. *Molecular Biology and Evolution* **32**: 268–274.
- Ni M, Feretzaki M, Sun S, *et al.* (2011). Sex in fungi. *Annual Review of Genetics* **45**: 405–430.
- Nishio Y, Nakamura Y, Kawarabayasi Y, *et al.* (2003). Comparative complete genome sequence analysis of the amino acid replacements responsible for the thermostability of *Corynebacterium efficiens*. *Genome Research* **13**: 1572–1579.
- Nosanchuk JD, Casadevall A (2003). The contribution of melanin to microbial pathogenesis. *Cell Microbiology* **5**: 203–223.
- Novikova O, Jayachandran P, Kelley DS, *et al.* (2016). Intein clustering suggests functional importance in different domains of life. *Molecular Biology and Evolution* **33**: 783–799.
- Olivera ER, Reglero A, Martínez-Blanco H, *et al.* (1994). Catabolism of aromatics in *Pseudomonas putida* U. Formal evidence that phenylacetic acid and 4-hydroxyphenylacetic acid are catabolized by two unrelated pathways. *European Journal of Biochemistry* **221**: 375–381.
- Paoletti M, Seymour FA, Alcocer MJ, *et al.* (2007). Mating type and the genetic basis of self-fertility in the model fungus *Aspergillus nidulans*. *Current Biology* **17**: 1384–1389.
- Park HG, Lee IS, Chun YJ, *et al.* (2011). Heterologous expression and characterization of the sterol 14 α -demethylase CYP51F1 from *Candida albicans*. *Archives of Biochemistry and Biophysics* **509**: 9–15.
- Park J, Lee S, Choi J, *et al.* (2008). Fungal cytochrome P450 database. *BMC Genomics* **9**, 402.
- Perler FB (2002). InBase: the Intein Database. *Nucleic Acids Research* **30**: 383–384.
- Perler FB, Davis EO, Dean GE, *et al.* (1994). Protein splicing elements: inteins and exteins—a definition of terms and recommended nomenclature. *Nucleic Acids Research* **22**: 1125–1127.
- Perozich J, Nicholas H, Wang BC, *et al.* (1999). Relationships within the aldehyde dehydrogenase extended family. *Protein Science* **8**: 137–146.
- Petzold EW, Himmelreich U, Mylonakis E, *et al.* (2006). Characterization and regulation of the trehalose synthesis pathway and its importance in the pathogenicity of *Cryptococcus neoformans*. *Infection and Immunity* **74**: 5877–5887.
- Phillips G, McEwan H, McKay I, *et al.* (1998). Black pigmented fungi in the water pipe-work supplying endoscope washer disinfectors. *Journal of Hospital Infection* **40**: 250–251.
- Piskur J, Rozpedowska E, Polakova S, *et al.* (2006). How did Saccharomyces evolve to become a good brewer? *Trends Genetics* **22**: 183–186.
- Plonka PM, Grabacka M (2006). Melanin synthesis in microorganisms—biotechnological and medical aspects. *Acta Biochimica Polonica* **53**: 429–443.
- Podust LM, Poulos TL, Waterman MR (2001). Crystal structure of cytochrome P450 14 α -sterol demethylase (CYP51) from *Mycobacterium tuberculosis* in complex with azole inhibitors. *Proceedings of the National Academy of Sciences of the United States of America* **98**: 3068–3073.
- Pontecorvo G (1956). The parasexual cycle in fungi. *Annual Review of Microbiology* **10**: 393–400.
- Poulsen M, Bot AN, Nielsen MG, *et al.* Experimental evidence for the costs and hygienic significance of the antibiotic metapleural gland secretion in leaf-cutting ants. *Behavioral Ecology and Sociobiology* **52**: 151–157.
- Poulter RT, Goodwin TJ, Butler MI (2007). The nuclear-encoded inteins of fungi. *Fungal Genetics and Biology* **44**: 153–179.
- Prenafeta-Boldú FX, Luykx DM, Vervoort J, *et al.* (2001). Fungal metabolism of toluene: monitoring of fluorinated analogs by ¹⁹F nuclear magnetic resonance spectroscopy. *Applied and Environmental Microbiology* **67**: 1030–1034.
- Prenafeta-Boldú FX, Summerbell R, de Hoog GS (2006). Fungi growing on aromatic hydrocarbons: biotechnology's unexpected encounter with biohazard? *FEMS Microbiology Reviews* **30**: 109–130.
- Prenafeta-Boldú FX, Vervoort J, Grotenhúis JT, *et al.* (2002). Substrate interactions during the biodegradation of benzene, toluene, ethylbenzene, and xylene (BTEX) hydrocarbons by the fungus *Cladophialophora* sp. strain T1. *Applied and Environmental Microbiology* **68**: 2660–2665.
- Rawlings ND (2010). Peptidase inhibitors in the MEROPS database. *Biochimie* **92**: 1463–1483.
- Rawlings ND, Waller M, Barrett AJ, *et al.* (2014). MEROPS: the database of proteolytic enzymes, their substrates and inhibitors. *Nucleic Acids Research* **42**: D503–509.
- Réblová M, Untereiner WA, Réblová K (2013). Novel evolutionary lineages revealed in the *Chaetothyriales* (fungi) based on multigene phylogenetic analyses and comparison of its secondary structure. *PLoS One* **8**: e63547.
- Rodríguez Couto S, Toca Herrera JL (2006). Industrial and biotechnological applications of laccases: a review. *Biotechnology Advances* **24**: 500–513.
- Roncero C (2002). The genetic complexity of chitin synthesis in fungi. *Current Genetics* **41**: 367–378.
- Rosas AL, Casadevall A (1997). Melanization affects susceptibility of *Cryptococcus neoformans* to heat and cold. *FEMS Microbiology Letters* **153**: 265–272.
- Saier MH Jr., Reddy VS, Tamang DG, *et al.* (2014). The transporter classification database. *Nucleic Acids Research* **42**: D251–258.
- Saier MH Jr., Tran CV, Barabote RD (2006). TCDB: the Transporter Classification Database for membrane transport protein analyses and information. *Nucleic Acids Research* **34**: D181–186.
- Salgado CG, da Silva JP, Diniz JA, *et al.* (2004). Isolation of *Fonsecaea pedrosoi* from thorns of *Mimosa pudica*, a probable natural source of chromoblastomycosis. *Revista do Instituto de Medicina Tropical de São Paulo* **46**: 33–36.
- Sanglard D, Ischer F, Koymans L, *et al.* (1998). Amino acid substitutions in the cytochrome P-450 lanosterol 14 α -demethylase (CYP51A1) from azole-resistant *Candida albicans* clinical isolates contribute to resistance to azole antifungal agents. *Antimicrobial Agents and Chemotherapy* **42**: 241–253.
- Saupe SJ, Glass NL (1997). Allelic specificity at the het-c heterokaryon incompatibility locus of *Neurospora crassa* is determined by a highly variable domain. *Genetics* **146**: 1299–1309.
- Schlüns H, Crozier RH (2009). Molecular and chemical immune defenses in ants (*Hymenoptera: Formicidae*). *Myrmecological News* **12**: 14.

- Schnitzler N, Peltroche-Llacsahuanga H, Bestier N, *et al.* (1999). Effect of melanin and carotenoids of *Exophiala (Wangiella) dermatitidis* on phagocytosis, oxidative burst, and killing by human neutrophils. *Infection and Immunity* **67**: 94–101.
- Scholer HJ, Muller E, Schipper MAA (1983). Mucorales. In: *Fungi pathogenic for humans and animals*. Howard D. H. (Marcel Dekker), New York: 9–59.
- Senejani AG, Hilario E, Gogarten JP (2001). The intein of the Thermoplasma A-ATPase A subunit: structure, evolution and expression in *E. coli*. *BMC Biochemistry* **2**: 13.
- Seyedmousavi S, Badali H, Chlebicki A, *et al.* (2011). *Exophiala sideris*, a novel black yeast isolated from environments polluted with toxic alkyl benzenes and arsenic. *Fungal Biology* **115**: 1030–1037.
- Seyedmousavi S, Guillot J, de Hoog GS (2013). Phaeohyphomycoses, emerging opportunistic diseases in animals. *Clinical Microbiology Reviews* **26**, 19–35.
- Seyedmousavi S, Netea MG, Mouton JW, *et al.* (2014). Black yeasts and their filamentous relatives: principles of pathogenesis and host defense. *Clinical Microbiology Reviews* **27**: 527–542.
- Sharpton TJ, Stajich JE, Rounsley SD, *et al.* (2009). Comparative genomic analyses of the human fungal pathogens *Coccidioides* and their relatives. *Genome Research* **19**: 1722–1731.
- Skamnioti P, Furlong RF, Gurr SJ (2008). The fate of gene duplicates in the genomes of fungal pathogens. *Communicative & Integrative Biology* **1**: 196–198.
- Soubrier J, Steel M, Lee MS, *et al.* (2012). The influence of rate heterogeneity among sites on the time dependence of molecular rates. *Molecular Biology and Evolution* **29**: 3345–3358.
- Stamatakis A (2006). RAxML-VI-HPC: maximum likelihood-based phylogenetic analyses with thousands of taxa and mixed models. *Bioinformatics* **22**: 2688–2690.
- Stanke M, Waack S (2003). Gene prediction with a hidden Markov model and a new intron submodel. *Bioinformatics* **19**: 215–225.
- Stenroos S, Laukka T, Huhtinen S, *et al.* (2010). Multiple origins of symbioses between ascomycetes and bryophytes suggested by a five-gene phylogeny. *Cladistics* **26**: 281–300.
- Sterflinger K, Prillinger H (2001). Molecular taxonomy and biodiversity of rock fungal communities in an urban environment (Vienna, Austria). *Antonie van Leeuwenhoek* **80**: 275–286.
- Sudhaham M, Prakitsin S, Sivichai S, *et al.* (2008). The neurotropic black yeast *Exophiala dermatitidis* has a possible origin in the tropical rain forest. *Studies in Mycology* **61**: 145–155.
- Sun J, Najafzadeh MJ, Gerrits van den Ende AHG, *et al.* (2012). Molecular characterization of pathogenic members of the genus *Fonsecaea* using multilocus analysis. *PLoS One* **7**: e41512.
- Sun J, Zhang J, Najafzadeh MJ, *et al.* (2011). Melanization of a meristematic mutant of *Fonsecaea monophora* increases tolerance to stress factors while no effects on antifungal susceptibility. *Mycopathologia* **172**: 373–380.
- Swithers KS, Soucy SM, Lasek-Nesselquist E, *et al.* (2013). Distribution and evolution of the mobile *vma-1b* intein. *Molecular Biology and Evolution* **30**: 2676–2687.
- Takeda K, Kaisho T, Akira S (2003). Toll-like receptors. *Annual Review of Immunology* **21**: 335–376.
- Takos AM, Rook F (2012). Why biosynthetic genes for chemical defense compounds cluster. *Trends in Plant Science* **17**: 383–388.
- Tamayo-Ramos JA, van Berkel WJ, de Graaff LH (2012). Biocatalytic potential of laccase-like multicopper oxidases from *Aspergillus niger*. *Microbial Cell Factories* **11**: 165.
- Tamura K, Battistuzzi FU, Billings-Ross P, *et al.* (2012). Estimating divergence times in large molecular phylogenies. *Proceedings of the National Academy of Sciences of the United States of America* **109**: 19333–19338.
- Tamura K, Stecher G, Peterson D, *et al.* (2013). MEGA6: Molecular Evolutionary Genetics Analysis version 6.0. *Molecular Biology and Evolution* **30**: 2725–2729.
- Teixeira MM, de Almeida LG, Kubitschek-Barreira P, *et al.* (2014). Comparative genomics of the major fungal agents of human and animal sporotrichosis: *Sporothrix schenckii* and *Sporothrix brasiliensis*. *BMC Genomics* **15**: 943.
- Tolmsoff WJ (1983). Heteroploidy as a mechanism of variability among fungi. *Annual Review of Phytopathology* **21**: 317–340.
- Topilina NI, Novikova O, Stanger M, *et al.* (2015). Post-translational environmental switch of RadA activity by extein-intein interactions in protein splicing. *Nucleic Acids Research* **43**: 6631–6648.
- Tsui CK, DiGiustini S, Wang Y, *et al.* (2013). Unequal recombination and evolution of the mating-type (MAT) loci in the pathogenic fungus *Grosmannia clavigera* and relatives. *G3: Genes, Genomes, Genetics* **3**: 465–480.
- Untereiner WA (1995). Fruiting studies in species of *Capronia* (Herpotrichiellaceae). *Antonie van Leeuwenhoek* **68**: 3–17.
- Untereiner WA (2000). *Capronia* and its anamorphs: exploring the value of morphological and molecular characters in the systematics of the Herpotrichiellaceae. *Studies in Mycology* **45**: 141–149.
- Untereiner WA, Naveau FA (1998). Molecular systematics of the Herpotrichiellaceae with an assessment of the phylogenetic positions of *Exophiala dermatitidis* and *Phialophora americana*. *Mycologia* **91**: 67–83.
- van den Brink HM, van Gorcom RF, van den Hondel CA, *et al.* (1998). Cytochrome P450 enzyme systems in fungi. *Fungal Genetics and Biology* **23**: 1–17.
- van der Kaaij RM, Janecek S, van der Maarel MJ, *et al.* (2007). Phylogenetic and biochemical characterization of a novel cluster of intracellular fungal alpha-amylase enzymes. *Microbiology* **153**: 4003–4015.
- van Dijk P, de Rop L, Szlufcik K, *et al.* (2002). Disruption of the *Candida albicans* TPS2 gene encoding trehalose-6-phosphate phosphatase decreases infectivity without affecting hypha formation. *Infection and Immunity* **70**: 1772–1782.
- Vavricka CJ, Christensen BM, Li J (2010). Melanization in living organisms: a perspective of species evolution. *Protein Cell* **1**: 830–841.
- Vicente VA, Attili-Angelis D, Pie MR, *et al.* (2008). Environmental isolation of black yeast-like fungi involved in human infection. *Studies in Mycology* **61**: 137–144.
- Voglmayr H, Mayer V, Maschwitz U, *et al.* (2011). The diversity of ant-associated black yeasts: insights into a newly discovered world of symbiotic interactions. *Fungal Biology* **115**: 1077–1091.
- Walter S (2002). Structure and function of the GroE chaperone. *Cellular and Molecular Life Sciences* **59**: 1589–1597.
- Warburton PE, Giordano J, Cheung F, *et al.* (2004). Inverted repeat structure of the human genome: the X-chromosome contains a preponderance of large, highly homologous inverted repeats that contain testes genes. *Genome Research* **14**: 1861–1869.
- Whiston E, Taylor JW (2015). Comparative phylogenomics of pathogenic and nonpathogenic species. *G3: Genes, Genomes, Genetics* **6**: 235–244.
- Wicker T, Sabot F, Hua-Van A, *et al.* (2007). A unified classification system for eukaryotic transposable elements. *Nature Reviews Genetics* **8**: 973–982.
- Wiemken A (1990). Trehalose in yeast, stress protectant rather than reserve carbohydrate. *Antonie van Leeuwenhoek* **58**: 209–217.
- Woertz JR, Kinney KA, McIntosh ND, *et al.* (2001). Removal of toluene in a vapor-phase bioreactor containing a strain of the dimorphic black yeast *Exophiala lecanii-comi*. *Biotechnology and Bioengineering* **75**: 550–558.
- Woo PC, Tam EW, Chong KT, *et al.* (2010). High diversity of polyketide synthase genes and the melanin biosynthesis gene cluster in *Penicillium marneffei*. *FEBS Journal* **277**: 3750–3758.
- Yoshida Y (1988). Cytochrome P450 of fungi: primary target for azole antifungal agents. *Current Topics in Medical Mycology* **2**: 388–418.

- Yoshida Y, Aoyama Y (1984). Yeast cytochrome P-450 catalyzing lanosterol 14 alpha-demethylation. I. Purification and spectral properties. *The Journal of Biological Chemistry* **259**: 1655–1660.
- Youngchim S, Morris-Jones R, Hay RJ, et al. (2004). Production of melanin by *Aspergillus fumigatus*. *Journal of Medical Microbiology* **53**: 175–181.
- Yun SH, Berbee ML, Yoder OC, et al. (1999). Evolution of the fungal self-fertile reproductive life style from self-sterile ancestors. *Proceedings of the National Academy of Sciences of the United States of America* **96**: 5592–5597.
- Zakharova K, Tesei D, Marzban G, et al. (2013). Microcolonial fungi on rocks: a life in constant drought? *Mycopathologia* **175**: 537–547.
- Zalar P, Novak M, de Hoog GS, et al. (2011). Dishwashers – a man-made ecological niche accommodating human opportunistic fungal pathogens. *Fungal Biology* **115**: 997–1007.
- Zeng J, Feng P, Gerrits van den Ende AHG, et al. (2013). Multilocus analysis of the *Exophiala jeanselmei* clade containing black yeasts involved in opportunistic disease in humans. *Fungal Diversity* **65**: 3–16.
- Zhang J, Wang L, Xi L, et al. (2013). Melanin in a meristematic mutant of *Fonsecaea monophora* inhibits the production of nitric oxide and Th1 cytokines of murine macrophages. *Mycopathologia* **175**: 515–522.
- Zhang S, Widemann E, Bernard G, et al. (2012). CYP52X1, representing new cytochrome P450 subfamily, displays fatty acid hydroxylase activity and contributes to virulence and growth on insect cuticular substrates in entomopathogenic fungus *Beauveria bassiana*. *The Journal of Biological Chemistry* **287**: 13477–13486.
- Zhao J, Gladieux P, Hutchison E, et al. (2015). Identification of allorecognition loci in *Neurospora crassa* by genomics and evolutionary approaches. *Molecular Biology and Evolution* **32**: 2417–2432.
- Zhao J, Zeng J, de Hoog GS, et al. (2010a). Isolation and identification of black yeasts by enrichment on atmospheres of monoaromatic hydrocarbons. *Microbial Ecology* **60**: 149–156.
- Zhao Y, Park RD, Muzzarelli RA (2010b). Chitin deacetylases: properties and applications. *Marine Drugs* **8**: 24–46.
- Zupancic J, Novak Babic M, Zalar P, et al. (2016). The black yeast *Exophiala dermatitidis* and other selected opportunistic human fungal pathogens spread from dishwashers to kitchens. *PLoS One* **11**: e0148166.

Figures:

Fig. 1. Phylogenomic distribution of *Chaetothyriales* and related ascomycetes used for comparative genomics. The majority of species are placed in the families *Cyphellophoraceae* (C) and *Herpotrichiellaceae* (H). The main characteristics such as niche, isolation source (red boxes – anthropophilic pathogens, orange boxes, zoophilic pathogens and green boxes geophilic), anamorphs, teleomorphs and sexual locus organization are displayed for each compared species.

Fig. 2. Phylogenetic analysis of members of *Chaetothyriales* (Class *Eurotiomycetes*). The Maximum likelihood tree, based on 172 LSU sequences, was determined using MEGA v. 6 with Kimura 2-parameter model with default settings and statistical bootstrapping procedure involving 500 replicates. Bootstrap values above 70 % are shown at the nodes. Family boundaries are indicated with coloured blocks. The tree was rooted to *Verrucula granulosa* AFTOL-ID 2304.

Fig. 3. Distribution of orthology classes in black yeasts and closely related fungi: core genes found in all genomes are shown in green, shared genes present in more than one but not all genomes in blue and genes that were unique to only one of the 28 analysed genomes in yellow.

Fig. 4. Genome-scale of chaetothyrialean phylogeny and divergence times. Calibration points are highlighted in blue and were used to infer the divergence times for *Chaetothyriales* (upper panel). The red node displays the divergence dates of *Chaetothyriales* and the red asterisk bolded area highlights a common era for both *Cyphellophoraceae* and *Herpotrichiellaceae*. The bottom scale presents the main geological and periods and eras.

Fig. 5. Dynamic evolution of protein families. (A) Phylogenetic tree showing the relationship between species and altered protein families. Pie diagrams and numbers at the nodes represent the abundance of contractions (red) expansion (blue) and No change (black) of 1771 protein families during evolution of black yeasts. (B) Heatmap showing expansion and contractions of protein families found in species belonging to the bantiana- and carrionii- clades, respectively. Domains are grouped by category similarity. All domains shown are significantly changed, and were identified using CAFE with cut-off of family p-values <0.05 and Viterbi p-values <0.01.

Fig. 6. Distribution of CYPp450 genes in *Ascomycota*. TOP 10 fungal species with highest CYP p450 numbers in ascomycetous genomes, based on search against the Fungal Cytochrome P450 Database (FCPD).

Fig. 7. Mating type locus structure of ancestral lineages *C. apollinis* and *V. gallopava* (top-right panel), the *Cyphellophoraceae* (bottom-left panel) and the *salmonis*-clade of *Herpotrichiellaceae* (top-left panel). Sexual loci for each fungal species are displayed in each respective scaffold and the corresponding genes and accession numbers are displayed to each gene.

Fig. 8. Mating type locus structure of heterothallic species *R. mackenziei* (lower panel), *E. dermatitidis* and closely related homothallic *Ca. coronata* and *Ca. epimyces* (*dermatitidis*-clade upper panel). Mating type genes are represented in each corresponding assembled scaffold. Accession numbers are displayed to each gene.

Fig. 9. Mating type locus organization of heterothallic species from *jeanlselmei*-clade, *Herpotrichiellaceae*. Mating type genes are represented in each corresponding assembled scaffold. Accession numbers are displayed to each gene.

Fig. 10. Mating type locus structure of heterothallic species from *carrionii*-clade, *Herpotrichiellaceae*. Mating type genes are represented in each corresponding assembled scaffold. Accession numbers are displayed to each gene.

Fig. 11. Mating type locus organization of heterothallic species from *bantiana*-clade, *Herpotrichiellaceae*. Mating type genes are represented in each corresponding assembled scaffold. Accession numbers are displayed to each gene.

Fig. 12. Distribution of heterokaryon (*het*) containing genes in 23 black yeast-like fungi and related Ascomycota. (A) Total counts of *het* containing genes (IPR010730 domain) for each species. (B) Pairwise similarity graphs generated by clustering analysis of 1439 *het*-containing proteins from Chaetothyriales and related species.

Tables:

Table 1. Overview of Cytochrome p450 in Black Yeasts.

Table 2. Summary of secondary-metabolite gene classes in Black yeast.

Supplement files:

Table S1. Isolates used in this study and their GenBank accession numbers.

Table S2. Genomic characteristics of 23 black fungal genomes.

Table S3. Transposable element content in Black Yeasts.

Table S4. Genomic novelties in Black Yeasts. Interpro protein domains significantly expanded at the common ancestor node of the black yeasts. Number of domains is shown for the 28 fungal species used in this analysis. Expanded domains were estimated using CAFE. GO categories were

assigned to the expanded domains using the Interproscan searches. * internal branch of phylogeny (Fig. 5).

Table S5. P450 monooxygenases (P450ome) classification. Number of genes in each family according to BLASTP searches against the fungal p450 CYPs database (Nelson 2009).

Table S6. Distribution CYP p450 pseudogenes.

Table S7. Distribution of CYP530 genes in fungal species. Number of CYP530 genes across 65 fungal species available in the Fungal Cytochrome P450 Database (FCPD) accessed September, 2015.

Table S8. Melanin biosynthetic pathway genes.

Table S9. Peptidase characterization of black yeasts based on MEROPS database.

Table S10. Total number of carbohydrate-active enzymes (CAZy) in the order *Chaetothyriales*.

Table S11. Cell wall biosynthesis genes.

Fig. S1. Genome size and number of protein-coding genes in six clades of the order *Chaetothyriales* and in the outgroups (ancestral) *Verruconis gallopava* and *Coniosporium apollinis*.

Fig. S2. TOP 10 most abundant KOG functions in clade-specific genes and in the core gene families. Genes assigned to the KOG class "General function prediction only" were not included in pie diagrams.

Fig. S3. Transposable element content in Black Yeasts. (A) DNA transposons, (B) LINE transposons and C) LTRs retrotransposons.

Fig. S4. Genomic characterization of *vma-1* intein of *R. mackenziei* and *F. pedrosoi* (A) Protein alignment showing conserved splicing sites and DOD-homing endonuclease motif. (B) Phylogenetic distribution of *vma-1* intein showing a unique clade specific for black yeast species which is apart from well-established *vma-1a* and *vma-1b*.

Fig. S5. Best ML tree of CYP 530 genes identified in 23 black yeast species.

Fig. S6. Best ML tree from RAxML analyses of CYP 51 genes identified in 23 black yeast species. Orthologs and paralogs are indicated by red and yellow blocks respectively.

Fig. S7. Distribution of phenolic compound metabolism gene clusters. Schematic diagram showing the synteny of genes likely involved in the degradation of phenolic compounds. The phylogeny (left panel) illustrates the relationships among the species beside homologs of the phenolic compound metabolism gene clusters (right panel). Small grey gene arrows across the clusters indicate hypothetical specie-specific proteins.

Fig. S8. CAFE Analysis of MEROPS peptidases in black yeasts (BY). Enrichment and depletion are represented by blue and red respectively.

Fig. S9. Gene expansion of the SX09 peptidase in black yeasts (BY). (A) Clustering analysis based on pairwise comparisons of SX09-containing proteins revealed to enriched clusters of BY. Phylogenetic distribution and gene counts of expanded S09X clusters IPR013094/PF07859 (B-C) and IPR02018/PF00135 (D-E).

Fig. S10. Gene gain and loss of metalloproteases M35, M36 and M38 families in black yeasts (BY). (A) Clustering analysis based on pairwise comparisons of M35, M36 and M38 revealing three enriched clusters in BY. (B) Phylogenetic distribution and gene indicating each of four BY-specific gene duplications events of M38 family. (C) Gene counts for the metalloproteases M35, M36 and M38 in BY and related species.

Fig. S11. Comparative genomic analysis of fused *MAT1-1/MAT1-2* gene of *Exophiala sideris* and related genes deposited in the Conserved Domain Database (CDD) for related species. Both MAT_Alpha1 and HMG-box domains are displayed in a single gene.

Fig. S12. Phylogenetic distribution of the main four clusters of heterokaryon (*het*) containing genes in black yeasts (BY). BY displays homologues of well characterized *het*-genes involved in allorecognition of *Podospora* ssp. and *Neurospora* ssp.

Clade	Species	Strain	# CYP	# Family	# Subfamily	# CYP Not assigned
<i>jeanselmei-clade</i>	<i>Exophiala xenobiotica</i>	CBS118157	164	62	39	41
	<i>Exophiala spinifera</i>	CBS 89968	122	56	28	30
	<i>Exophiala oligosperma</i>	CBS725.88	131	52	30	30
	<i>Exophiala sideris</i>	CBS121828	97	40	23	25
<i>dermatitidis-clade</i>	<i>Exophiala dermatitidis</i>	CBS 525.76	62	24	27	9
	<i>Capronia epimyces</i>	CBS 606.96	99	40	32	15
	<i>Capronia coronata</i>	CBS 617.96	60	25	19	16
<i>rhinoclatiella mackenzie-clade</i>	<i>Rhinoclatiella mackenzie</i>	CBS 650.93	161	56	46	44
<i>carrionii-clade</i>	<i>Cladophialophora carrionii</i>	CBS 160.54	101	37	31	29
	<i>Cladophialophora yegresii</i>	CBS 114405	88	34	26	26
	<i>Capronia semiimmersa</i>	CBS 27337	109	44	28	36
<i>bantiana-clade</i>	<i>Fonsecaea pedrosoi</i>	CBS 271.37	164	70	38	38
	<i>Fonsecaea multimorphosa</i>	CBS 102226	165	67	44	40
	<i>Cladophialophora immunda</i>	CBS834.96	144	51	38	37
	<i>Cladophialophora bantiana</i>	CBS 173.52	175	68	42	48
	<i>Cladophialophora psammophila</i>	CBS 110553	231	85	52	57
<i>salmonis-clade</i>	<i>Exophiala aquamarina</i>	CBS 119918	179	68	36	51
	<i>Exophiala mesophila</i>	CBS402.95	75	39	19	19
<i>Cyphellophoraceae</i>	<i>Phialophora europaea</i>	CBS 101466	117	49	28	33
	<i>Phialophora attae</i>	CBS131958	135	59	32	37
	<i>Coniosporium apollinis</i>	CBS 100218	77	37	25	8
Outgroup	<i>Verruconis gallopava</i>	CBS437.64	84	39	23	14

1	A105_04996T0	Z519_04493T0	20.15	412	255	15	4	355	456	853	6.00E-08	53.5
1	A105_12685T0	Z519_12105T0	21.64	305	208	14	36	326	71	358	2.00E-07	53.5
16	A105_01292T0	Z519_06664T0	22.81	399	279	9	23	408	353	735	7.00E-17	84
2	A105_05631T0	Z519_12756T0	22.91	179	130	5	51	224	77	252	4.00E-09	54.3
19	A105_01146T0	Z519_05304T0	22.96	514	348	11	41	546	599	1072	3.00E-19	91.3
1	A105_01152T0	Z519_07168T0	22.96	392	227	9	1	390	1	319	6.00E-26	107
4	A105_05619T0	Z519_03994T0	23.15	553	379	18	19	546	73	604	1.00E-23	105
2	A105_03927T0	Z519_12716T0	23.28	262	172	9	32	273	34	286	1.00E-07	51.6
41	A105_05623T0	Z519_03624T0	23.42	444	251	13	76	446	217	644	1.00E-25	110
1	A105_07251T0	Z519_00126T0	23.5	183	128	6	72	246	154	332	2.00E-08	53.9
1	A105_08226T0	Z519_00759T0	23.65	203	128	5	5	203	325	504	9.00E-08	50.4
5	A105_00655T0	Z519_02446T0	24.11	336	207	14	310	626	202	508	9.00E-10	62.4
2	A105_09605T0	Z519_04907T0	24.22	322	214	8	49	355	12	318	1.00E-17	85.9
32	A105_07526T0	Z519_09870T0	24.23	648	400	21	61	692	1556	2128	1.00E-25	112
36	A105_00980T0	Z519_06682T0	24.26	474	288	17	105	532	124	572	5.00E-31	127
1	A105_05849T0	Z519_11216T0	24.31	325	188	13	1	295	228	524	2.00E-08	55.5
1	A105_09594T0	Z519_02853T0	24.31	255	136	11	9	253	553	760	2.00E-09	57
5	A105_06215T0	Z519_11866T0	24.48	572	317	20	223	711	529	1068	6.00E-26	114
2	A105_01137T0	Z519_11424T0	24.49	784	454	23	30	723	42	777	4.00E-58	213
9	A105_08299T0	Z519_06772T0	24.73	469	283	19	78	526	102	520	2.00E-22	100
1	A105_03929T0	Z519_12717T0	24.82	560	342	18	10	501	20	568	3.00E-31	130
1	A105_12178T0	Z519_11435T0	24.84	314	211	9	39	341	8	307	4.00E-13	69.7
31	A105_01040T0	Z519_04618T0	25	360	213	11	43	400	126	430	2.00E-21	98.2
2	A105_02230T0	Z519_12696T0	25	204	122	4	1	173	1	204	2.00E-11	61.2
11	A105_12557T0	Z519_10762T0	25.04	619	361	18	18	560	25	616	1.00E-36	143
63	A105_11418T0	Z519_04964T0	25.08	658	390	19	7	640	25	603	2.00E-39	154
41	A105_00262T0	Z519_04618T0	25.13	557	364	17	37	567	116	645	7.00E-33	133
1	A105_12667T0	Z519_12717T0	25.22	579	393	17	4	557	6	569	7.00E-36	146
4	A105_03932T0	Z519_12719T0	25.36	351	240	8	59	390	54	401	1.00E-25	106
8	A105_00643T0	Z519_12285T0	25.48	259	178	7	148	400	151	400	1.00E-11	66.2
7	A105_03930T0	Z519_12728T0	25.48	989	623	29	7	950	6	925	2.00E-69	249
4	A105_11596T0	Z519_10762T0	25.48	263	126	9	63	325	305	497	7.00E-16	78.6
1	A105_05549T0	Z519_03664T0	25.52	145	85	5	24	152	157	294	4.00E-07	47.4
10	A105_00814T0	Z519_06470T0	25.53	333	227	8	34	357	43	363	1.00E-21	94.4
1	A105_04344T0	Z519_11435T0	25.53	666	455	21	14	649	2	656	4.00E-51	187

56	A105_10628T0	Z519_02620T0	25.61	453	308	14	13	445	65	508	4.00E-32	127
4	A105_02056T0	Z519_09909T0	25.65	191	128	5	6	185	5	192	5.00E-14	67
3	A105_04031T0	Z519_03686T0	25.66	152	101	5	12	153	61	210	7.00E-08	48.9
14	A105_12556T0	Z519_10763T0	25.66	1091	658	37	89	1119	116	1113	8.00E-49	189
43	A105_12468T0	Z519_09115T0	25.7	498	288	18	60	528	54	498	9.00E-29	121
6	A105_12716T0	Z519_00963T0	25.74	408	249	13	9	376	28	421	8.00E-29	115
2	A105_11480T0	Z519_03541T0	25.93	351	197	18	221	534	1	325	2.00E-12	68.2
3	A105_03566T0	Z519_07955T0	25.97	335	181	8	1	268	75	409	5.00E-23	96.3
57	A105_00346T0	Z519_03624T0	26.01	446	282	11	90	501	216	647	6.00E-37	145
58	A105_06182T0	Z519_04649T0	26.11	475	288	14	58	505	174	612	5.00E-37	147
1	A105_03922T0	Z519_12093T0	26.17	256	164	5	8	243	1	251	1.00E-24	100
7	A105_08780T0	Z519_12083T0	26.19	168	111	3	1	156	209	375	1.00E-10	58.5
10	A105_10374T0	Z519_00697T0	26.23	244	134	6	13	231	8	230	9.00E-19	87.4
57	A105_11630T0	Z519_09715T0	26.23	751	482	17	2	714	50	766	2.00E-57	209
19	A105_05483T0	Z519_05912T0	26.24	564	335	23	19	557	3	510	3.00E-31	126
1	A105_10327T0	Z519_11205T0	26.34	224	142	5	4	220	2	209	2.00E-17	78.6
2	A105_09411T0	Z519_00714T0	26.54	211	142	7	20	225	14	216	3.00E-07	50.4
50	A105_10337T0	Z519_12779T0	26.54	599	386	16	127	697	62	634	2.00E-58	210
20	A105_05992T0	Z519_00995T0	26.63	706	387	16	4	624	59	718	8.00E-54	198
93	A105_07760T0	Z519_00307T0	26.69	1270	724	39	177	1367	363	1504	2.00E-89	319
53	A105_11580T0	Z519_01855T0	26.71	292	163	9	1	243	117	406	1.00E-19	87
4	A105_03150T0	Z519_09994T0	26.74	258	154	9	4	236	8	255	7.00E-13	65.1
1	A105_12669T0	Z519_12715T0	26.74	273	158	10	37	271	37	305	2.00E-15	79
5	A105_01343T0	Z519_01834T0	26.78	183	109	2	5	164	59	239	2.00E-09	55.5
13	A105_05200T0	Z519_12502T0	26.8	250	164	6	17	257	45	284	2.00E-18	82
12	A105_06500T0	Z519_01905T0	26.82	343	212	13	56	383	258	576	1.00E-22	98.6
4	A105_12659T0	Z519_06515T0	26.87	201	133	4	320	513	365	558	1.00E-12	71.2
2	A105_03321T0	Z519_12105T0	26.91	550	345	10	2	526	110	627	2.00E-38	150
2	A105_12921T0	Z519_07955T0	27.03	407	228	12	26	390	30	409	2.00E-38	143
3	A105_13264T0	Z519_08947T0	27.03	222	144	8	1	211	5	219	1.00E-13	67.4
18	A105_00982T0	Z519_08605T0	27.1	310	200	10	125	417	83	383	3.00E-27	110
28	A105_08523T0	Z519_04818T0	27.2	353	233	10	135	476	335	674	2.00E-24	106
4	A105_10428T0	Z519_09270T0	27.2	261	157	6	49	278	121	379	2.00E-22	95.1
65	A105_08407T0	Z519_11728T0	27.22	371	225	14	257	612	300	640	2.00E-22	101
1	A105_01887T0	Z519_08924T0	27.23	224	114	6	52	272	21	198	2.00E-13	67

4	A105_06715T0	Z519_11733T0	27.33	172	115	4	14	178	357	525	2.00E-22	94.4
7	A105_10650T0	Z519_02992T0	27.39	157	101	5	2	148	10	163	6.00E-10	53.5
3	A105_00772T0	Z519_05449T0	27.4	292	166	11	345	626	185	440	1.00E-15	79
40	A105_07341T0	Z519_12315T0	27.42	660	353	27	35	604	16	639	3.00E-39	152
44	A105_13390T0	Z519_09192T0	27.43	627	385	20	16	610	36	624	9.00E-44	165
1	A105_13007T0	Z519_04422T0	27.5	120	76	2	15	134	11	119	2.00E-09	56.6
5	A105_00214T0	Z519_09151T0	27.53	247	158	8	77	318	50	280	4.00E-16	79
26	A105_10843T0	Z519_04448T0	27.53	316	149	7	1	241	1	311	5.00E-23	97.8
1	A105_01133T0	Z519_06824T0	27.56	225	123	11	80	292	75	271	1.00E-07	51.6
32	A105_08232T0	Z519_03579T0	27.62	210	127	6	207	413	211	398	2.00E-13	71.2
34	A105_09403T0	Z519_02620T0	27.67	430	289	10	81	498	67	486	1.00E-41	156
1	A105_09874T0	Z519_00237T0	27.67	159	99	2	4	146	5	163	1.00E-11	65.1
2	A105_10966T0	Z519_01235T0	27.7	148	97	4	48	189	94	237	1.00E-06	47.4
1	A105_13373T0	Z519_10172T0	27.74	292	186	11	7	288	75	351	6.00E-20	89
17	A105_01079T0	Z519_11518T0	27.77	587	341	16	35	567	72	629	3.00E-56	206
3	A105_06495T0	Z519_07955T0	27.82	363	232	8	100	444	59	409	6.00E-34	131
39	A105_12713T0	Z519_07621T0	27.86	499	310	9	158	641	185	648	4.00E-54	200
2	A105_05242T0	Z519_04030T0	27.88	208	129	6	2	204	339	530	8.00E-14	68.6
50	A105_05205T0	Z519_07720T0	27.89	459	314	11	12	459	103	555	8.00E-44	163
2	A105_01588T0	Z519_08661T0	27.93	111	71	1	50	160	116	217	1.00E-06	47.4
1	A105_11312T0	Z519_00907T0	27.94	136	78	4	15	130	8	143	2.00E-06	44.3
20	A105_06466T0	Z519_05448T0	27.99	343	221	7	37	358	18	355	4.00E-35	132
28	A105_10518T0	Z519_08058T0	28.01	332	182	12	69	397	2	279	1.00E-17	82
17	A105_00047T0	Z519_11626T0	28.03	792	442	30	9	711	9	761	3.00E-72	254
35	A105_06217T0	Z519_07621T0	28.03	446	289	12	2	432	199	627	1.00E-39	153
7	A105_10993T0	Z519_04100T0	28.05	902	522	29	352	1176	272	1123	2.00E-83	297
2	A105_09421T0	Z519_02501T0	28.14	199	131	7	4	191	128	325	2.00E-12	63.5
64	A105_00762T0	Z519_09353T0	28.15	341	210	10	36	368	32	345	8.00E-31	128
4	A105_09529T0	Z519_01408T0	28.15	238	129	12	1	216	161	378	3.00E-08	54.7
112	A105_07478T0	Z519_09433T0	28.25	754	458	23	1	736	374	1062	1.00E-67	245
10	A105_02236T0	Z519_12266T0	28.26	276	144	6	1	227	63	333	4.00E-20	86.7
21	A105_11606T0	Z519_09412T0	28.26	591	360	19	37	582	29	600	7.00E-48	181
4	A105_10012T0	Z519_11475T0	28.27	382	243	8	136	499	257	625	4.00E-36	144
1	A105_07759T0	Z519_00306T0	28.32	286	197	4	14	295	21	302	5.00E-32	121
81	A105_10991T0	Z519_03096T0	28.46	369	219	9	209	564	713	1049	2.00E-23	103

15	A105_12058T0	Z519_12720T0	28.47	274	189	4	27	298	14	282	3.00E-37	135
10	A105_13083T0	Z519_09266T0	28.53	382	208	10	52	408	444	785	5.00E-32	128
1	A105_06838T0	Z519_05452T0	28.57	231	132	9	3	229	4	205	2.00E-18	80.9
20	A105_01505T0	Z519_01562T0	28.61	374	238	9	25	373	231	600	5.00E-33	135
139	A105_08290T0	Z519_06985T0	28.62	538	266	18	303	795	711	1175	2.00E-33	138
4	A105_11730T0	Z519_02455T0	28.62	615	345	17	97	694	161	698	2.00E-59	215
43	A105_03024T0	Z519_04582T0	28.73	703	405	18	1	622	1	688	7.00E-71	243
3	A105_09408T0	Z519_02106T0	28.73	275	171	13	8	273	3	261	2.00E-29	114
25	A105_09968T0	Z519_02620T0	28.73	456	295	11	81	520	67	508	5.00E-43	160
1	A105_09402T0	Z519_11931T0	28.74	254	154	6	5	257	7	234	5.00E-32	119
44	A105_05564T0	Z519_07373T0	28.77	810	506	18	131	880	150	948	2.00E-89	307
1	A105_08404T0	Z519_08154T0	28.77	73	52	0	64	136	2	74	2.00E-06	42.7
48	A105_06194T0	Z519_11228T0	28.82	340	209	11	30	358	36	353	1.00E-26	108
2	A105_10092T0	Z519_04197T0	28.83	222	137	10	28	230	286	505	1.00E-12	66.2
6	A105_13365T0	Z519_03869T0	28.83	444	303	7	4	447	3	433	3.00E-52	183
12	A105_05368T0	Z519_04225T0	28.86	544	281	20	1	461	1	521	2.00E-48	183
19	A105_13369T0	Z519_05912T0	28.88	554	349	13	4	522	2	545	2.00E-67	228
12	A105_06316T0	Z519_06985T0	28.9	301	172	8	10	291	357	634	3.00E-25	106
39	A105_01099T0	Z519_04582T0	28.91	339	192	8	4	304	69	396	1.00E-26	112
1	A105_03317T0	Z519_02435T0	28.99	207	109	11	614	799	687	876	2.00E-09	60.1
6	A105_10102T0	Z519_02446T0	28.99	276	148	9	278	550	668	898	4.00E-12	68.9
8	A105_07121T0	Z519_00547T0	29.06	437	266	13	13	427	4	418	2.00E-48	172
32	A105_11425T0	Z519_04223T0	29.06	265	168	6	1	250	150	409	1.00E-22	98.6
24	A105_03025T0	Z519_12676T0	29.07	313	172	13	3	277	189	489	1.00E-23	102
2	A105_06177T0	Z519_08448T0	29.07	86	59	1	221	304	71	156	4.00E-07	48.9
3	A105_09965T0	Z519_02106T0	29.08	282	171	15	9	279	3	266	3.00E-26	104
6	A105_13375T0	Z519_03528T0	29.13	206	121	7	13	201	276	473	2.00E-16	76.6
8	A105_06277T0	Z519_07048T0	29.14	278	164	12	158	420	442	701	6.00E-16	80.1
29	A105_03032T0	Z519_01562T0	29.16	439	267	11	431	846	249	666	6.00E-42	164
54	A105_12962T0	Z519_07068T0	29.18	699	418	18	36	679	24	700	2.00E-67	238
1	A105_03252T0	Z519_05804T0	29.22	243	144	9	79	309	187	413	8.00E-11	61.6
99	A105_11311T0	Z519_09998T0	29.24	277	177	3	7	282	47	305	3.00E-31	119
35	A105_12044T0	Z519_11203T0	29.24	831	505	16	337	1139	65	840	3.00E-94	322
1	A105_01862T0	Z519_08924T0	29.25	212	121	7	55	260	10	198	4.00E-11	60.1
1	A105_11319T0	Z519_10037T0	29.25	441	263	12	4	437	3	401	2.00E-41	155

3	A105_12209T0	Z519_00940T0	29.32	382	218	13	113	466	98	455	4.00E-30	122
1	A105_00662T0	Z519_04100T0	29.33	866	502	30	17	833	376	1180	4.00E-90	313
1	A105_12666T0	Z519_06463T0	29.36	109	62	5	179	276	124	228	4.00E-07	50.4
28	A105_12175T0	Z519_09433T0	29.5	139	96	1	3	141	1358	1494	9.00E-13	65.1
37	A105_06193T0	Z519_01130T0	29.52	271	148	8	68	297	149	417	5.00E-22	95.1
1	A105_05495T0	Z519_09174T0	29.65	172	97	3	4	175	3	150	6.00E-14	68.6
1	A105_07758T0	Z519_00305T0	29.66	1008	565	38	28	945	43	996	4.00E-91	316
2	A105_00761T0	Z519_08703T0	29.71	239	162	3	323	557	164	400	1.00E-33	134
56	A105_02055T0	Z519_01829T0	29.76	336	218	9	20	350	20	342	6.00E-30	117
90	A105_05620T0	Z519_04648T0	29.76	541	327	15	6	533	29	529	2.00E-68	232
3	A105_09253T0	Z519_04197T0	29.81	104	66	2	36	135	76	176	4.00E-08	50.8
5	A105_08418T0	Z519_07066T0	29.84	248	142	8	17	240	75	314	4.00E-23	95.1
1	A105_05444T0	Z519_07162T0	29.9	97	60	3	1	94	101	192	4.00E-06	43.1
1	A105_12009T0	Z519_12094T0	29.93	147	88	5	62	200	136	275	2.00E-14	69.7
9	A105_04326T0	Z519_10364T0	29.98	1688	1067	42	25	1663	34	1655	0	684
2	A105_12174T0	Z519_06985T0	30	110	76	1	1	109	551	660	7.00E-11	58.9
158	A105_09610T0	Z519_09433T0	30.02	463	318	5	241	702	1166	1623	1.00E-43	169
84	A105_09985T0	Z519_04223T0	30.05	569	377	9	4	555	12	576	3.00E-79	264
4	A105_05622T0	Z519_04128T0	30.07	143	86	1	19	161	21	149	3.00E-12	63.5
2	A105_12210T0	Z519_00941T0	30.07	725	437	23	50	725	16	719	6.00E-81	278
1	A105_03756T0	Z519_08709T0	30.09	113	60	3	3	115	12	105	1.00E-09	52
1	A105_12698T0	Z519_08142T0	30.1	103	72	0	5	107	174	276	1.00E-06	46.6
4	A105_05767T0	Z519_10606T0	30.16	126	62	2	2	101	136	261	7.00E-12	60.5
10	A105_00800T0	Z519_12499T0	30.17	179	114	6	1	171	203	378	5.00E-21	87.8
62	A105_09913T0	Z519_09395T0	30.18	338	220	10	19	348	29	358	1.00E-27	110
1	A105_12030T0	Z519_12815T0	30.21	96	56	3	4	89	11	105	4.00E-08	47.8
4	A105_09967T0	Z519_00413T0	30.27	588	336	20	4	547	44	601	3.00E-49	180
11	A105_09728T0	Z519_03615T0	30.28	568	377	10	4	558	6	567	2.00E-70	247
6	A105_12346T0	Z519_00234T0	30.29	208	113	7	7	200	27	216	1.00E-19	84
1	A105_04047T0	Z519_05477T0	30.3	132	87	2	267	395	10	139	6.00E-10	58.9
1	A105_09611T0	Z519_08403T0	30.32	155	95	6	5	155	8	153	5.00E-11	56.6
8	A105_03484T0	Z519_05013T0	30.34	290	182	8	10	295	441	714	1.00E-23	101
12	A105_12435T0	Z519_05415T0	30.35	659	380	13	44	667	103	717	1.00E-81	276
48	A105_13259T0	Z519_04234T0	30.36	392	255	6	9	393	59	439	4.00E-45	166
21	A105_05198T0	Z519_12502T0	30.38	237	148	4	8	235	39	267	4.00E-22	92.4

20	A105_03919T0	Z519_02900T0	30.39	204	129	7	36	232	38	235	4.00E-16	76.3
18	A105_12299T0	Z519_06070T0	30.42	332	193	10	41	370	28	323	3.00E-33	127
3	A105_09613T0	Z519_04610T0	30.45	220	112	5	3	191	65	274	6.00E-24	96.3
10	A105_09970T0	Z519_06070T0	30.49	328	194	12	36	357	25	324	6.00E-32	122
4	A105_07524T0	Z519_11074T0	30.52	308	178	10	25	305	117	415	1.00E-36	137
18	A105_08102T0	Z519_01725T0	30.56	144	100	0	1	144	134	277	2.00E-18	81.3
6	A105_04995T0	Z519_08947T0	30.72	332	213	8	1	329	4	321	8.00E-42	149
2	A105_07124T0	Z519_09114T0	30.77	169	111	3	1	166	1	166	5.00E-18	81.6
1	A105_07268T0	Z519_03612T0	30.77	65	43	1	355	419	268	330	5.00E-07	51.2
106	A105_06196T0	Z519_08909T0	30.83	519	310	12	154	647	22	516	8.00E-69	246
1	A105_07718T0	Z519_09160T0	30.83	266	164	8	3	251	17	279	9.00E-33	122
6	A105_04014T0	Z519_11610T0	30.84	535	319	15	1	507	1	512	8.00E-70	239
127	A105_07716T0	Z519_05351T0	30.85	470	284	14	37	479	34	489	5.00E-63	215
1	A105_08386T0	Z519_07535T0	30.88	136	77	6	377	506	531	655	5.00E-09	57.8
39	A105_12380T0	Z519_12779T0	30.88	285	154	10	2	283	210	454	5.00E-27	110
26	A105_08292T0	Z519_08857T0	30.89	560	322	16	278	795	343	879	5.00E-50	188
3	A105_01098T0	Z519_03913T0	30.91	385	220	12	84	463	29	372	6.00E-37	141
67	A105_13412T0	Z519_02948T0	30.91	508	317	9	79	573	92	578	6.00E-59	208
3	A105_09515T0	Z519_10691T0	30.92	359	202	8	5	327	46	394	2.00E-44	164
39	A105_10680T0	Z519_09115T0	30.95	378	214	15	261	611	150	507	2.00E-38	153
68	A105_10404T0	Z519_05404T0	31.02	332	201	6	74	395	100	413	8.00E-46	167
21	A105_07116T0	Z519_05912T0	31.06	235	141	7	8	234	146	367	2.00E-23	98.2
36	A105_05197T0	Z519_01846T0	31.09	402	249	9	111	500	124	509	1.00E-48	179
3	A105_03883T0	Z519_05158T0	31.11	135	84	2	7	141	10	135	6.00E-10	60.5
77	A105_12181T0	Z519_07720T0	31.12	556	368	8	11	558	15	563	2.00E-77	259
1	A105_05633T0	Z519_09633T0	31.13	106	70	2	5	110	32	134	3.00E-07	45.8
2	A105_09622T0	Z519_05464T0	31.15	122	53	3	1	120	500	592	1.00E-07	48.9
3	A105_05621T0	Z519_03357T0	31.18	510	312	12	19	506	22	514	1.00E-69	235
1	A105_13116T0	Z519_11241T0	31.19	109	57	3	90	189	443	542	2.00E-06	47.4
21	A105_00426T0	Z519_12662T0	31.2	234	135	8	2	217	301	526	4.00E-23	97.8
1	A105_12332T0	Z519_03431T0	31.25	112	64	4	31	132	97	205	4.00E-06	44.3
5	A105_01752T0	Z519_08947T0	31.38	290	190	6	1	281	4	293	2.00E-40	145
7	A105_10634T0	Z519_08947T0	31.38	325	211	8	1	320	4	321	1.00E-46	162
1	A105_12404T0	Z519_06639T0	31.43	175	85	8	4	170	1	148	2.00E-08	53.5
60	A105_11316T0	Z519_12255T0	31.44	353	205	6	6	352	1	322	2.00E-45	159

36	A105_08524T0	Z519_10654T0	31.47	197	117	3	39	229	986	1170	2.00E-19	87.4
92	A105_10626T0	Z519_09500T0	31.47	518	326	6	6	520	58	549	3.00E-86	280
12	A105_11315T0	Z519_05438T0	31.48	521	296	15	140	629	20	510	2.00E-58	210
1	A105_04317T0	Z519_11095T0	31.51	146	92	4	2	146	109	247	1.00E-06	45.4
5	A105_04021T0	Z519_01061T0	31.54	577	272	15	36	502	31	594	1.00E-71	246
2	A105_04805T0	Z519_00724T0	31.65	79	48	2	13	91	147	219	2.00E-06	44.7
27	A105_11942T0	Z519_08695T0	31.68	161	107	2	5	164	172	330	5.00E-26	103
1	A105_12434T0	Z519_08328T0	31.69	142	68	3	2	120	316	451	4.00E-11	58.5
1	A105_00326T0	Z519_05579T0	31.75	126	64	4	2	122	1	109	7.00E-10	52.4
3	A105_01145T0	Z519_04438T0	31.76	85	53	2	3	85	289	370	1.00E-08	50.8
1	A105_05194T0	Z519_11178T0	31.78	107	66	2	6	110	86	187	1.00E-06	47
96	A105_09969T0	Z519_11014T0	31.78	214	132	5	5	211	31	237	3.00E-18	81.3
64	A105_06199T0	Z519_01840T0	31.8	651	395	16	26	672	35	640	6.00E-94	306
1	A105_07393T0	Z519_01246T0	31.84	245	136	9	252	495	345	559	6.00E-20	92.8
23	A105_01095T0	Z519_10007T0	31.87	182	121	3	119	300	389	567	8.00E-15	74.3
7	A105_01550T0	Z519_01127T0	31.95	266	163	5	22	286	40	288	4.00E-38	138
16	A105_00810T0	Z519_06070T0	32.05	337	192	11	34	367	22	324	2.00E-33	127
43	A105_06520T0	Z519_01249T0	32.05	624	369	9	1	573	86	705	1.00E-103	339
1	A105_05231T0	Z519_08436T0	32.06	131	70	5	13	134	66	186	4.00E-10	57
1	A105_02178T0	Z519_08230T0	32.11	109	62	3	25	125	72	176	4.00E-08	50.4
2	A105_06179T0	Z519_10716T0	32.12	165	89	6	6	158	291	444	2.00E-09	54.3
16	A105_06118T0	Z519_01566T0	32.13	638	338	15	262	852	292	881	3.00E-60	219
20	A105_10381T0	Z519_00870T0	32.13	333	162	11	1	282	14	333	2.00E-41	149
20	A105_10382T0	Z519_00870T0	32.13	333	162	11	1	282	14	333	2.00E-41	149
1	A105_11032T0	Z519_10892T0	32.14	140	72	5	17	137	93	228	2.00E-10	56.2
5	A105_13097T0	Z519_04931T0	32.14	196	115	6	1	189	1	185	2.00E-21	88.2
55	A105_00908T0	Z519_04448T0	32.19	438	284	7	1	428	1	435	1.00E-65	224
4	A105_06335T0	Z519_09387T0	32.24	577	312	15	24	543	20	574	7.00E-79	261
39	A105_12547T0	Z519_04092T0	32.28	158	104	2	4	158	213	370	6.00E-24	97.4
2	A105_12670T0	Z519_01700T0	32.33	232	150	2	21	245	412	643	7.00E-34	129
16	A105_02051T0	Z519_08605T0	32.35	238	147	5	128	353	89	324	2.00E-33	129
69	A105_06787T0	Z519_09314T0	32.35	575	374	9	31	602	14	576	1.00E-83	275
63	A105_11808T0	Z519_05193T0	32.36	445	288	6	4	440	147	586	2.00E-63	217
44	A105_01339T0	Z519_07621T0	32.37	485	294	11	38	506	185	651	3.00E-72	251
1	A105_10379T0	Z519_02853T0	32.37	139	78	4	184	322	208	330	5.00E-07	50.4

6	A105_01771T0	Z519_06134T0	32.39	318	195	8	234	532	258	574	4.00E-35	138
5	A105_13439T0	Z519_02776T0	32.41	435	186	12	1	414	120	467	5.00E-50	183
61	A105_06337T0	Z519_08669T0	32.42	546	355	10	7	547	1	537	4.00E-88	286
1	A105_00303T0	Z519_02826T0	32.43	111	61	5	1	105	1	103	3.00E-06	45.4
2	A105_10093T0	Z519_08927T0	32.47	77	49	2	120	195	774	848	7.00E-07	48.5
4	A105_12403T0	Z519_00197T0	32.54	252	144	7	1	242	150	385	1.00E-28	112
11	A105_11579T0	Z519_05438T0	32.57	479	291	11	8	468	27	491	2.00E-66	229
27	A105_09390T0	Z519_11057T0	32.58	89	60	0	3	91	9	97	6.00E-13	63.2
2	A105_01139T0	Z519_09495T0	32.61	276	162	9	16	291	773	1024	2.00E-33	131
7	A105_08264T0	Z519_05505T0	32.62	512	318	11	303	809	7	496	8.00E-77	263
2	A105_05061T0	Z519_09877T0	32.65	291	155	7	4	272	7	278	7.00E-30	118
32	A105_10992T0	Z519_03096T0	32.65	147	98	1	1	146	844	990	1.00E-15	75.1
2	A105_12955T0	Z519_02588T0	32.67	101	48	2	1	81	1	101	9.00E-08	47
21	A105_00815T0	Z519_00484T0	32.73	605	370	15	55	637	32	621	2.00E-72	247
4	A105_09504T0	Z519_07084T0	32.73	556	290	14	105	611	93	613	1.00E-77	260
22	A105_07719T0	Z519_07131T0	32.75	458	245	14	155	578	2	430	1.00E-62	215
18	A105_09407T0	Z519_01508T0	32.75	287	157	11	7	280	19	282	3.00E-35	130
21	A105_06220T0	Z519_01859T0	32.76	232	84	3	27	190	25	252	6.00E-30	117
8	A105_08627T0	Z519_00870T0	32.76	174	101	8	1	162	172	341	9.00E-20	84.7
17	A105_09912T0	Z519_10717T0	32.8	378	234	7	445	804	14	389	7.00E-52	186
14	A105_00985T0	Z519_01828T0	32.88	73	48	1	1	72	7	79	2.00E-09	52
19	A105_03126T0	Z519_04818T0	32.89	377	224	11	22	389	327	683	2.00E-49	186
1	A105_11607T0	Z519_02807T0	32.94	85	55	2	2	85	8	91	4.00E-09	52.4
2	A105_11772T0	Z519_07888T0	32.97	182	77	7	2	161	103	261	1.00E-19	84.3
2	A105_09711T0	Z519_05557T0	33.03	436	234	12	10	410	23	435	8.00E-60	207
68	A105_10851T0	Z519_10159T0	33.07	381	237	5	1	366	99	476	3.00E-64	215
1	A105_06541T0	Z519_04602T0	33.08	133	78	3	24	154	416	539	7.00E-14	68.2
207	A105_06783T0	Z519_04611T0	33.08	260	153	3	9	247	11	270	4.00E-40	142
13	A105_12438T0	Z519_09758T0	33.1	290	166	5	70	357	73	336	6.00E-44	156
61	A105_12714T0	Z519_04662T0	33.19	455	275	11	5	449	184	619	7.00E-75	249
6	A105_01721T0	Z519_03389T0	33.33	297	174	5	1	277	246	538	3.00E-47	171
17	A105_04027T0	Z519_12290T0	33.33	327	201	9	1	317	1	320	8.00E-49	168
3	A105_05170T0	Z519_04542T0	33.33	102	56	5	11	102	618	717	1.00E-07	48.9
4	A105_09596T0	Z519_10545T0	33.33	201	117	7	48	246	207	392	3.00E-21	90.9
13	A105_10846T0	Z519_03869T0	33.33	435	283	5	1	435	1	428	2.00E-73	239

22	A105_11117T0	Z519_08551T0	33.33	129	85	1	13	140	20	148	2.00E-17	78.2
1	A105_12035T0	Z519_03250T0	33.33	81	49	2	2	77	384	464	6.00E-06	42.4
18	A105_12134T0	Z519_10007T0	33.33	144	96	0	91	234	403	546	3.00E-14	72.4
26	A105_12830T0	Z519_08116T0	33.33	138	72	2	32	149	47	184	1.00E-14	70.1
4	A105_00218T0	Z519_10956T0	33.41	431	273	6	42	463	147	572	1.00E-69	237
18	A105_04332T0	Z519_08605T0	33.46	266	163	7	134	388	92	354	1.00E-38	144
2	A105_03031T0	Z519_09244T0	33.5	203	103	7	78	260	1	191	4.00E-27	106
11	A105_03315T0	Z519_01366T0	33.52	698	396	14	15	664	13	690	1.00E-109	350
2	A105_01680T0	Z519_08230T0	33.55	155	94	4	12	163	70	218	2.00E-16	78.6
5	A105_07438T0	Z519_07082T0	33.62	116	75	1	3	116	436	551	7.00E-15	69.7
39	A105_13266T0	Z519_09534T0	33.64	437	271	5	5	425	1	434	1.00E-80	261
1	A105_00488T0	Z519_07561T0	33.71	89	58	1	1	89	55	142	2.00E-06	44.3
1	A105_01699T0	Z519_07532T0	33.71	175	91	4	36	205	407	561	5.00E-19	84.3
2	A105_01755T0	Z519_10679T0	33.74	163	96	3	12	162	10	172	3.00E-22	89
10	A105_06087T0	Z519_06808T0	33.74	661	387	16	99	729	208	847	6.00E-101	332
3	A105_01142T0	Z519_12662T0	33.8	71	43	2	146	212	448	518	9.00E-08	52
6	A105_02069T0	Z519_04353T0	33.9	177	96	6	14	179	11	177	2.00E-20	84.7
24	A105_12656T0	Z519_05234T0	33.94	327	199	6	3	318	378	698	3.00E-48	174
19	A105_09966T0	Z519_01508T0	34.03	288	154	11	6	280	18	282	7.00E-34	126
85	A105_00795T0	Z519_04223T0	34.04	570	344	11	4	557	23	576	3.00E-86	282
4	A105_00807T0	Z519_09025T0	34.04	141	91	1	1	141	1	139	1.00E-22	92.8
2	A105_05618T0	Z519_05020T0	34.04	94	61	1	37	129	73	166	1.00E-08	53.1
8	A105_06028T0	Z519_11611T0	34.06	502	286	9	1	468	48	538	1.00E-70	236
1	A105_05646T0	Z519_02809T0	34.07	270	170	4	147	409	40	308	5.00E-38	141
124	A105_09604T0	Z519_07990T0	34.1	519	310	10	59	563	71	571	8.00E-97	316
2	A105_11300T0	Z519_03446T0	34.12	85	52	1	9	93	52	132	7.00E-06	45.8
2	A105_12909T0	Z519_03869T0	34.13	167	99	4	4	168	3	160	3.00E-16	75.1
18	A105_01787T0	Z519_08265T0	34.14	618	365	15	1	611	34	616	1.00E-97	313
19	A105_05547T0	Z519_09355T0	34.14	249	147	5	51	282	124	372	5.00E-27	116
3	A105_12645T0	Z519_07782T0	34.15	123	78	2	10	131	50	170	7.00E-19	79
10	A105_09929T0	Z519_06429T0	34.19	465	286	3	4	465	8	455	2.00E-86	276
1	A105_09974T0	Z519_11931T0	34.21	152	98	2	1	152	84	233	8.00E-28	104
6	A105_09536T0	Z519_09503T0	34.29	140	91	1	53	191	272	411	6.00E-20	87.8
4	A105_04347T0	Z519_08673T0	34.3	414	251	10	1	405	1	402	7.00E-65	217
2	A105_05004T0	Z519_02517T0	34.33	134	80	4	1	130	381	510	1.00E-14	70.5

2	A105_04647T0	Z519_05615T0	34.34	166	102	3	9	173	15	174	2.00E-20	84.3
35	A105_05748T0	Z519_08643T0	34.37	1292	773	24	67	1295	50	1329	0	703
2	A105_06181T0	Z519_09661T0	34.48	116	66	4	1	113	226	334	2.00E-07	48.9
13	A105_09230T0	Z519_02476T0	34.51	339	196	9	12	334	7	335	8.00E-54	181
3	A105_01143T0	Z519_00767T0	34.53	223	133	3	9	231	20	229	3.00E-34	127
12	A105_03902T0	Z519_02704T0	34.59	133	60	5	252	374	795	910	7.00E-14	72.4
7	A105_04980T0	Z519_00810T0	34.6	367	202	11	63	419	60	398	6.00E-44	161
160	A105_13376T0	Z519_10029T0	34.63	488	292	6	51	538	53	513	5.00E-93	296
40	A105_04994T0	Z519_09506T0	34.66	453	283	6	1	446	1	447	2.00E-81	262
11	A105_02932T0	Z519_01213T0	34.67	274	151	6	1	246	133	406	2.00E-41	149
155	A105_09607T0	Z519_12187T0	34.68	444	284	3	7	449	23	461	8.00E-86	276
5	A105_00914T0	Z519_03708T0	34.71	121	72	3	11	131	66	179	7.00E-13	64.3
90	A105_12432T0	Z519_03757T0	34.73	524	307	5	6	525	5	497	6.00E-102	318
1	A105_02582T0	Z519_00306T0	34.75	118	71	4	48	164	147	259	1.00E-07	50.1
5	A105_05786T0	Z519_08485T0	34.8	204	111	8	1	186	1	200	3.00E-23	93.2
6	A105_12673T0	Z519_12719T0	34.81	385	233	9	51	428	27	400	4.00E-66	223
6	A105_08632T0	Z519_05862T0	34.84	310	192	8	1	306	243	546	1.00E-45	166
1	A105_01275T0	Z519_05376T0	34.86	109	57	3	221	315	733	841	3.00E-09	57.4
2	A105_08362T0	Z519_10947T0	34.88	86	54	2	1	85	93	177	7.00E-14	63.2
8	A105_06069T0	Z519_08623T0	34.91	106	63	2	4	109	483	582	7.00E-08	49.3
2	A105_01689T0	Z519_00681T0	34.94	312	175	6	27	321	26	326	8.00E-50	171
15	A105_00823T0	Z519_10654T0	34.95	103	66	1	49	151	1005	1106	1.00E-12	65.1
14	A105_01506T0	Z519_11501T0	34.98	303	161	6	39	320	519	806	4.00E-47	175
1	A105_10985T0	Z519_08788T0	35	80	48	2	8	85	985	1062	2.00E-07	47.4
5	A105_09537T0	Z519_09503T0	35.02	257	146	6	11	260	576	818	3.00E-37	140
211	A105_06339T0	Z519_01545T0	35.04	254	150	5	4	247	7	255	3.00E-39	139
1	A105_05747T0	Z519_05619T0	35.05	214	81	7	15	179	12	216	4.00E-26	101
6	A105_09349T0	Z519_11786T0	35.05	214	125	2	96	295	187	400	7.00E-30	120
36	A105_05636T0	Z519_09162T0	35.07	422	258	8	5	416	21	436	8.00E-82	261
6	A105_06536T0	Z519_07421T0	35.07	442	255	7	7	432	6	431	1.00E-82	263
9	A105_06847T0	Z519_00966T0	35.12	410	212	10	3	391	4	380	7.00E-73	235
11	A105_13399T0	Z519_01562T0	35.12	168	94	5	5	158	273	439	2.00E-22	94.7
179	A105_04037T0	Z519_05058T0	35.14	259	152	8	48	301	12	259	3.00E-32	121
4	A105_01106T0	Z519_10846T0	35.16	91	56	1	1	88	1	91	4.00E-14	63.5
24	A105_06848T0	Z519_07034T0	35.17	381	179	13	35	370	127	484	9.00E-53	184

2	A105_00489T0	Z519_07561T0	35.2	179	106	2	4	180	207	377	7.00E-28	110
28	A105_06565T0	Z519_04079T0	35.2	125	76	2	4	125	8	130	1.00E-16	75.1
1	A105_07287T0	Z519_11650T0	35.21	71	44	2	34	104	27	95	8.00E-07	43.9
47	A105_01136T0	Z519_05863T0	35.23	369	233	5	22	386	3	369	7.00E-59	199
9	A105_02954T0	Z519_06429T0	35.29	357	228	2	1	354	95	451	1.00E-70	231
1	A105_04620T0	Z519_06843T0	35.29	187	100	10	8	187	173	345	7.00E-07	50.1
158	A105_04342T0	Z519_05524T0	35.31	490	304	8	19	497	29	516	3.00E-89	286
97	A105_09391T0	Z519_04766T0	35.4	291	164	7	14	282	6	294	1.00E-46	160
1	A105_12704T0	Z519_02134T0	35.4	161	74	3	14	144	20	180	5.00E-20	82.4
246	A105_03311T0	Z519_02363T0	35.49	324	171	6	961	1266	312	615	2.00E-54	202
5	A105_02189T0	Z519_02455T0	35.52	656	327	24	60	686	127	715	2.00E-100	332
108	A105_09229T0	Z519_11777T0	35.62	511	301	12	26	520	7	505	1.00E-94	299
3	A105_07934T0	Z519_07969T0	35.71	154	72	3	28	158	678	827	4.00E-19	85.5
18	A105_10588T0	Z519_07221T0	35.71	168	84	3	435	601	2	146	6.00E-26	105
12	A105_01837T0	Z519_12281T0	35.74	319	147	5	13	274	21	338	2.00E-58	192
16	A105_12465T0	Z519_07727T0	35.77	383	178	7	3	319	56	436	6.00E-64	220
6	A105_04330T0	Z519_08673T0	35.82	416	246	8	1	409	1	402	9.00E-79	254
28	A105_10949T0	Z519_03096T0	35.87	92	59	0	2	93	912	1003	3.00E-09	52.8
11	A105_01337T0	Z519_06036T0	35.9	117	67	3	13	126	14	125	9.00E-14	65.9
94	A105_12463T0	Z519_05155T0	35.9	273	150	5	1	253	131	398	5.00E-46	161
30	A105_11812T0	Z519_00437T0	35.93	423	266	3	3	425	261	678	8.00E-85	278
88	A105_06200T0	Z519_10285T0	35.96	470	289	7	36	496	16	482	8.00E-97	303
4	A105_06713T0	Z519_10822T0	35.97	278	171	6	16	286	25	302	1.00E-44	155
3	A105_09505T0	Z519_07083T0	35.97	531	306	12	4	508	11	533	9.00E-81	263
49	A105_07118T0	Z519_04792T0	36.07	402	217	12	3	374	35	426	4.00E-59	202
28	A105_08271T0	Z519_04760T0	36.11	144	71	3	1	129	97	234	1.00E-20	86.7
13	A105_03125T0	Z519_10576T0	36.14	202	117	4	1	191	13	213	5.00E-31	120
155	A105_12179T0	Z519_12529T0	36.14	534	318	9	1	524	17	537	3.00E-111	343
3	A105_12681T0	Z519_12731T0	36.14	202	127	2	16	215	95	296	2.00E-35	144
2	A105_05060T0	Z519_09877T0	36.17	188	98	6	1	183	395	565	1.00E-27	109
31	A105_10844T0	Z519_02853T0	36.17	600	345	12	233	820	199	772	1.00E-101	335
10	A105_05548T0	Z519_10762T0	36.18	199	120	3	81	275	306	501	1.00E-31	124
156	A105_12712T0	Z519_09128T0	36.18	492	307	6	2	487	8	498	3.00E-91	292
5	A105_11572T0	Z519_09292T0	36.21	58	37	0	5	62	91	148	3.00E-07	44.7
1	A105_08756T0	Z519_10514T0	36.22	127	46	3	1	97	1	122	4.00E-17	72.4

7	A105_07122T0	Z519_06134T0	36.26	91	54	2	14	101	54	143	5.00E-11	58.5
2	A105_05615T0	Z519_05020T0	36.3	135	78	3	5	132	37	170	1.00E-17	78.6
105	A105_06212T0	Z519_06914T0	36.31	526	323	8	15	534	19	538	2.00E-104	327
4	A105_08625T0	Z519_08013T0	36.36	99	59	2	1	97	261	357	4.00E-19	79.7
19	A105_09916T0	Z519_08488T0	36.36	88	56	0	5	92	130	217	3.00E-09	51.6
3	A105_13378T0	Z519_02853T0	36.47	170	95	3	6	175	207	363	1.00E-22	95.5
8	A105_06214T0	Z519_06830T0	36.48	318	154	7	5	316	39	314	3.00E-59	194
89	A105_10839T0	Z519_10899T0	36.51	482	288	5	13	483	21	495	2.00E-103	321
157	A105_11574T0	Z519_06203T0	36.53	490	300	4	4	485	8	494	5.00E-98	308
40	A105_04998T0	Z519_09506T0	36.56	454	279	6	57	506	1	449	6.00E-92	291
2	A105_10094T0	Z519_09954T0	36.56	93	50	3	1	93	162	245	8.00E-12	59.3
108	A105_11309T0	Z519_06587T0	36.56	279	144	7	1	269	5	260	8.00E-40	149
10	A105_03920T0	Z519_05701T0	36.59	205	113	4	1	204	1	189	3.00E-30	112
4	A105_03926T0	Z519_09470T0	36.63	101	58	4	3	102	21	116	1.00E-12	60.8
13	A105_08406T0	Z519_11501T0	36.63	273	158	5	38	302	512	777	5.00E-51	182
6	A105_02871T0	Z519_09624T0	36.64	666	347	19	13	659	10	619	1.00E-111	353
37	A105_11417T0	Z519_03034T0	36.64	333	172	7	16	311	13	343	1.00E-62	207
155	A105_04038T0	Z519_06933T0	36.67	499	287	9	3	474	31	527	3.00E-93	295
118	A105_12511T0	Z519_12187T0	36.74	215	124	2	1	215	274	476	2.00E-38	140
1	A105_03307T0	Z519_12144T0	36.76	272	143	7	201	444	271	541	1.00E-49	178
1	A105_12018T0	Z519_02063T0	36.76	68	41	2	3	69	189	255	1.00E-07	48.1
16	A105_05742T0	Z519_00634T0	36.82	239	118	7	3	227	80	299	2.00E-45	157
113	A105_06211T0	Z519_08930T0	36.82	258	154	6	20	272	15	268	1.00E-46	160
51	A105_05207T0	Z519_12285T0	36.88	301	175	8	256	549	134	426	8.00E-45	169
28	A105_00984T0	Z519_01828T0	36.89	103	64	1	4	106	338	439	5.00E-15	69.7
159	A105_04032T0	Z519_05155T0	36.94	517	298	10	3	511	7	503	1.00E-102	320
146	A105_01764T0	Z519_00660T0	36.95	295	182	3	1	295	200	490	1.00E-67	221
4	A105_12655T0	Z519_07525T0	36.97	165	80	6	1	146	754	913	3.00E-16	75.5
89	A105_03235T0	Z519_07113T0	37	500	291	7	16	497	23	516	1.00E-101	317
118	A105_09412T0	Z519_06043T0	37.02	289	172	4	6	287	5	290	3.00E-48	165
6	A105_08948T0	Z519_03615T0	37.03	424	244	6	4	408	279	698	5.00E-81	268
21	A105_13144T0	Z519_04378T0	37.04	216	77	6	1	185	749	936	1.00E-22	98.2
7	A105_13362T0	Z519_01284T0	37.04	405	231	10	15	411	10	398	1.00E-88	277
2	A105_11927T0	Z519_01440T0	37.06	143	40	3	3	99	128	266	6.00E-20	84
1	A105_09395T0	Z519_09909T0	37.14	70	38	2	1	64	50	119	4.00E-08	47.4

6	A105_13457T0	Z519_06190T0	37.14	175	109	1	1	174	174	348	4.00E-31	115
9	A105_01753T0	Z519_07871T0	37.19	597	335	11	4	566	6	596	5.00E-130	397
159	A105_12305T0	Z519_10097T0	37.2	508	297	11	27	519	17	517	3.00E-115	353
165	A105_13260T0	Z519_02701T0	37.25	255	153	5	6	258	23	272	5.00E-48	162
3	A105_12665T0	Z519_01700T0	37.26	263	155	5	13	269	395	653	1.00E-49	174
29	A105_01773T0	Z519_08612T0	37.29	472	267	11	4	455	56	518	1.00E-90	291
147	A105_13082T0	Z519_10204T0	37.29	236	144	2	5	240	58	289	3.00E-50	174
96	A105_09976T0	Z519_06043T0	37.33	292	169	5	1	284	1	286	1.00E-51	175
3	A105_00809T0	Z519_10295T0	37.41	286	153	3	7	267	3	287	2.00E-60	196
13	A105_09971T0	Z519_12561T0	37.42	302	184	3	1	299	1	300	1.00E-67	215
25	A105_04035T0	Z519_00920T0	37.46	331	196	6	44	366	444	771	2.00E-66	233
1	A105_01138T0	Z519_03864T0	37.5	80	48	1	41	118	2	81	3.00E-11	55.8
1	A105_02523T0	Z519_00770T0	37.5	112	45	4	1	112	94	180	2.00E-11	60.1
1	A105_02684T0	Z519_06336T0	37.5	96	52	2	11	99	346	440	1.00E-14	68.6
154	A105_11305T0	Z519_06203T0	37.53	477	289	6	18	487	24	498	7.00E-93	295
5	A105_00799T0	Z519_12016T0	37.55	237	103	2	31	222	5	241	3.00E-52	174
153	A105_05003T0	Z519_04789T0	37.55	498	295	7	11	502	20	507	9.00E-108	333
3	A105_03370T0	Z519_12423T0	37.58	165	96	3	1	158	387	551	1.00E-25	103
11	A105_05247T0	Z519_09290T0	37.59	133	78	2	3	130	1	133	2.00E-27	100
22	A105_10842T0	Z519_12554T0	37.59	399	228	13	16	401	4	394	2.00E-64	214
14	A105_13269T0	Z519_05388T0	37.63	287	165	7	10	288	29	309	1.00E-52	176
19	A105_02062T0	Z519_02380T0	37.67	223	91	5	21	195	178	400	5.00E-40	143
90	A105_04340T0	Z519_05525T0	37.67	300	162	8	5	295	3	286	9.00E-49	166
152	A105_05000T0	Z519_04789T0	37.68	483	277	10	35	505	36	506	6.00E-103	321
102	A105_09592T0	Z519_03511T0	37.71	297	183	2	13	309	18	312	6.00E-68	217
155	A105_10377T0	Z519_06612T0	37.74	265	158	3	5	266	8	268	1.00E-55	182
20	A105_01319T0	Z519_02446T0	37.77	188	92	5	45	209	745	930	5.00E-22	94.4
34	A105_04346T0	Z519_12783T0	37.78	352	218	1	13	364	10	360	2.00E-81	259
2	A105_00798T0	Z519_12166T0	37.79	307	175	8	14	314	13	309	1.00E-54	182
57	A105_09502T0	Z519_03256T0	37.79	389	209	12	21	386	7	385	2.00E-62	216
11	A105_13090T0	Z519_11765T0	37.79	299	145	6	113	382	9	295	5.00E-53	180
132	A105_11310T0	Z519_08945T0	37.85	531	308	6	1	513	1	527	4.00E-122	371
4	A105_06091T0	Z519_07264T0	37.86	140	84	1	12	151	197	333	4.00E-31	115
15	A105_09409T0	Z519_02471T0	37.86	486	284	8	122	596	247	725	2.00E-107	348
11	A105_00913T0	Z519_02853T0	37.88	586	336	11	25	599	208	776	2.00E-107	343

4	A105_06658T0	Z519_03562T0	37.93	261	147	3	88	345	6	254	9.00E-52	179
156	A105_13374T0	Z519_12187T0	38	471	279	4	33	501	2	461	1.00E-107	335
149	A105_12793T0	Z519_06009T0	38.01	492	265	6	51	503	56	546	5.00E-99	327
2	A105_09088T0	Z519_12010T0	38.02	334	191	6	84	408	9	335	8.00E-71	229
141	A105_13377T0	Z519_06914T0	38.06	515	305	6	14	521	31	538	2.00E-130	394
9	A105_04348T0	Z519_08617T0	38.1	861	476	14	3	836	221	1051	0	607
4	A105_04688T0	Z519_08999T0	38.1	168	68	3	3	140	114	275	3.00E-26	101
1	A105_09003T0	Z519_03772T0	38.1	84	38	2	23	92	35	118	2.00E-08	49.3
165	A105_13361T0	Z519_06612T0	38.11	265	153	3	12	266	5	268	4.00E-55	181
89	A105_05625T0	Z519_06035T0	38.14	527	308	7	14	534	7	521	2.00E-116	358
26	A105_03934T0	Z519_12013T0	38.17	131	77	1	30	160	86	212	9.00E-17	73.9
19	A105_06068T0	Z519_09606T0	38.22	484	251	11	1	457	1	463	8.00E-92	297
1	A105_13276T0	Z519_06873T0	38.24	170	98	3	78	242	18	185	4.00E-32	118
2	A105_03310T0	Z519_12196T0	38.25	285	153	6	97	380	90	352	7.00E-52	182
8	A105_11588T0	Z519_02977T0	38.27	81	49	1	1	81	21	100	1.00E-13	62
4	A105_10380T0	Z519_02853T0	38.28	303	170	9	1	291	471	768	2.00E-53	186
50	A105_01774T0	Z519_10080T0	38.29	175	71	4	96	270	624	761	2.00E-22	96.7
41	A105_04028T0	Z519_04662T0	38.29	350	214	2	155	502	132	481	1.00E-71	242
6	A105_09207T0	Z519_04065T0	38.33	60	37	0	45	104	527	586	1.00E-08	50.8
37	A105_09606T0	Z519_00576T0	38.34	506	288	9	1	490	1	498	1.00E-109	337
33	A105_05204T0	Z519_11984T0	38.39	336	197	3	18	343	24	359	9.00E-68	225
98	A105_00787T0	Z519_01725T0	38.42	518	292	6	2	508	43	544	3.00E-125	380
1	A105_00660T0	Z519_07319T0	38.46	65	40	0	9	73	142	206	4.00E-07	45.1
4	A105_08554T0	Z519_00423T0	38.46	130	75	3	12	136	11	140	2.00E-21	85.9
124	A105_11575T0	Z519_07093T0	38.46	507	295	4	16	507	16	520	2.00E-126	382
145	A105_12907T0	Z519_06009T0	38.46	494	262	7	41	494	55	546	3.00E-99	327
9	A105_09911T0	Z519_07858T0	38.51	322	190	5	1	320	1	316	3.00E-73	232
5	A105_06184T0	Z519_03624T0	38.56	153	86	4	1	147	503	653	1.00E-26	105
1	A105_12683T0	Z519_07319T0	38.6	114	66	3	2	112	5	117	9.00E-14	65.5
3	A105_04349T0	Z519_08617T0	38.61	202	102	4	12	191	6	207	2.00E-39	144
32	A105_09507T0	Z519_08428T0	38.61	101	61	1	12	112	64	163	3.00E-18	80.5
53	A105_10378T0	Z519_04039T0	38.61	417	233	10	1	404	14	420	2.00E-92	289
143	A105_13476T0	Z519_08945T0	38.62	479	287	4	1	475	52	527	7.00E-125	377
60	A105_02520T0	Z519_05455T0	38.63	233	133	6	38	266	385	611	6.00E-48	169
26	A105_05362T0	Z519_08630T0	38.65	282	157	9	67	344	49	318	2.00E-41	149

97	A1O5_09404T0	Z519_10091T0	38.66	551	329	5	10	558	62	605	1.00E-142	430
4	A1O5_12300T0	Z519_12419T0	38.68	243	133	4	1	227	457	699	8.00E-47	164
4	A1O5_12331T0	Z519_12561T0	38.71	93	57	0	1	93	35	127	1.00E-14	67.4
2	A1O5_05169T0	Z519_07955T0	38.74	111	68	0	1	111	83	193	9.00E-16	72.8
9	A1O5_01587T0	Z519_09099T0	38.77	325	167	8	11	320	640	947	6.00E-61	211
148	A1O5_13371T0	Z519_01170T0	38.78	508	308	2	36	541	1	507	3.00E-124	378
99	A1O5_09972T0	Z519_10091T0	38.8	567	324	5	14	580	62	605	2.00E-143	435
1	A1O5_13271T0	Z519_12813T0	38.81	67	41	0	50	116	20	86	2.00E-11	58.5
53	A1O5_13381T0	Z519_04039T0	38.88	427	236	8	54	467	12	426	2.00E-93	293
143	A1O5_10629T0	Z519_04929T0	38.93	280	147	5	2	272	1	265	1.00E-53	177
76	A1O5_12466T0	Z519_12292T0	38.95	190	90	4	17	182	60	247	6.00E-35	124
13	A1O5_13262T0	Z519_07555T0	38.95	611	352	13	2	609	8	600	9.00E-120	371
15	A1O5_08872T0	Z519_04449T0	38.96	77	47	0	1	77	255	331	3.00E-11	58.9
8	A1O5_06785T0	Z519_09387T0	38.97	349	188	7	229	573	248	575	8.00E-71	241
46	A1O5_04992T0	Z519_04039T0	38.98	431	249	9	5	428	13	436	1.00E-102	317
130	A1O5_11576T0	Z519_06019T0	38.99	277	154	8	6	274	10	279	4.00E-43	159
221	A1O5_11308T0	Z519_06036T0	39	259	141	5	23	270	4	256	2.00E-45	155
77	A1O5_11423T0	Z519_12653T0	39.01	223	104	1	76	266	2	224	4.00E-44	157
5	A1O5_12664T0	Z519_05982T0	39.02	82	43	4	1	78	99	177	1.00E-09	53.9
6	A1O5_12295T0	Z519_08608T0	39.06	128	75	3	10	135	13	139	6.00E-20	81.6
155	A1O5_00909T0	Z519_06009T0	39.08	499	261	8	56	514	55	550	3.00E-99	328
1	A1O5_11472T0	Z519_09495T0	39.08	87	52	1	1	87	152	237	2.00E-13	64.7
158	A1O5_13267T0	Z519_05155T0	39.17	434	253	6	9	440	79	503	2.00E-102	317
22	A1O5_08291T0	Z519_08857T0	39.18	319	184	7	123	437	580	892	1.00E-51	187
6	A1O5_07734T0	Z519_03906T0	39.24	79	45	2	39	117	30	105	1.00E-10	56.6
3	A1O5_07221T0	Z519_10545T0	39.27	331	180	8	4	317	67	393	1.00E-67	219
156	A1O5_00911T0	Z519_06914T0	39.28	527	310	5	1	523	21	541	4.00E-138	414
3	A1O5_07933T0	Z519_12636T0	39.29	56	34	0	1	56	43	98	1.00E-06	41.2
5	A1O5_12459T0	Z519_00584T0	39.29	56	34	0	9	64	129	184	1.00E-09	55.1
12	A1O5_04048T0	Z519_05479T0	39.32	206	116	4	51	247	31	236	1.00E-36	132
39	A1O5_01717T0	Z519_00576T0	39.34	483	278	6	18	490	20	497	2.00E-112	344
1	A1O5_01726T0	Z519_12120T0	39.39	66	40	0	3	68	46	111	1.00E-07	48.1
155	A1O5_09978T0	Z519_05155T0	39.4	500	277	7	17	501	14	502	3.00E-124	375
15	A1O5_12046T0	Z519_10576T0	39.43	350	190	7	10	344	12	354	6.00E-72	245
4	A1O5_00467T0	Z519_04583T0	39.44	142	27	2	6	88	459	600	8.00E-18	77.8

14	A105_06533T0	Z519_09273T0	39.53	172	99	2	35	202	3	173	5.00E-32	118
101	A105_00778T0	Z519_02178T0	39.62	265	150	6	10	266	8	270	1.00E-61	199
39	A105_10591T0	Z519_12694T0	39.63	492	268	7	2	476	167	646	7.00E-110	348
122	A105_11302T0	Z519_06035T0	39.63	535	312	8	12	539	2	532	2.00E-130	394
37	A105_08927T0	Z519_08683T0	39.64	830	402	14	17	790	17	803	0	586
84	A105_08630T0	Z519_01745T0	39.68	494	229	6	37	467	37	524	9.00E-110	337
23	A105_12658T0	Z519_12013T0	39.68	126	76	0	1	126	34	159	3.00E-20	82.8
1	A105_05361T0	Z519_08576T0	39.69	320	183	3	14	332	13	323	4.00E-70	236
108	A105_11582T0	Z519_07093T0	39.71	418	242	4	23	432	18	433	2.00E-105	326
6	A105_11581T0	Z519_08945T0	39.73	73	36	2	6	73	457	526	8.00E-10	53.5
4	A105_04981T0	Z519_02765T0	39.75	551	303	11	3	542	4	536	4.00E-115	355
51	A105_12902T0	Z519_12017T0	39.75	395	224	4	31	419	5	391	1.00E-97	300
1	A105_02231T0	Z519_03491T0	39.78	181	79	8	140	314	427	583	3.00E-15	76.6
1	A105_12780T0	Z519_12643T0	39.78	93	40	3	96	178	483	569	3.00E-06	48.1
8	A105_03636T0	Z519_06616T0	39.8	98	48	2	4	94	323	416	2.00E-13	64.7
1	A105_05950T0	Z519_08450T0	39.8	98	59	0	4	101	140	237	3.00E-19	79.7
68	A105_00785T0	Z519_08799T0	39.91	228	119	6	41	257	27	247	3.00E-44	154
74	A105_13220T0	Z519_12549T0	39.92	526	288	4	21	523	24	544	3.00E-130	396
156	A105_09401T0	Z519_05155T0	39.95	443	257	6	2	442	67	502	8.00E-109	333
4	A105_02081T0	Z519_05479T0	40	55	31	1	27	79	182	236	7.00E-07	45.4
1	A105_02555T0	Z519_10298T0	40	110	60	3	20	126	22	128	8.00E-14	63.5
2	A105_04993T0	Z519_09508T0	40	120	66	1	1	114	1	120	2.00E-27	99
1	A105_08661T0	Z519_12318T0	40	105	34	3	1	80	150	250	1.00E-12	62.4
8	A105_09614T0	Z519_06616T0	40	55	33	0	1	55	275	329	3.00E-08	48.1
7	A105_10091T0	Z519_07848T0	40	105	54	3	1	104	90	186	1.00E-15	71.6
23	A105_10624T0	Z519_05912T0	40	550	307	12	4	538	3	544	5.00E-129	390
11	A105_10874T0	Z519_07858T0	40	280	162	4	1	279	1	275	9.00E-67	213
2	A105_12147T0	Z519_00397T0	40	80	48	0	30	109	329	408	2.00E-13	66.2
5	A105_12263T0	Z519_09795T0	40	190	110	2	11	200	319	504	4.00E-41	148
7	A105_06782T0	Z519_09387T0	40.07	589	289	16	16	568	15	575	5.00E-113	352
11	A105_10998T0	Z519_10689T0	40.13	471	272	6	2	467	60	525	5.00E-103	320
2	A105_08338T0	Z519_08371T0	40.16	127	75	1	1	127	207	332	2.00E-21	90.1
62	A105_09915T0	Z519_07621T0	40.19	836	421	17	8	834	23	788	0	578
20	A105_06480T0	Z519_09606T0	40.2	704	388	11	1	675	81	780	8.00E-171	511
9	A105_02215T0	Z519_04157T0	40.23	435	249	7	8	438	10	437	4.00E-97	308

12	A105_06630T0	Z519_10120T0	40.25	159	88	3	47	200	52	208	5.00E-26	103
80	A105_06205T0	Z519_07621T0	40.28	638	332	11	30	626	25	654	2.00E-143	445
1	A105_00965T0	Z519_01810T0	40.3	67	40	0	14	80	14	80	3.00E-11	57.4
148	A105_12297T0	Z519_05155T0	40.33	491	270	7	16	499	25	499	5.00E-120	365
71	A105_05634T0	Z519_08669T0	40.34	595	317	6	1	595	1	557	5.00E-158	468
2	A105_06219T0	Z519_11178T0	40.37	322	176	7	27	339	34	348	6.00E-70	226
4	A105_03471T0	Z519_04600T0	40.41	542	283	9	1	537	2	508	3.00E-129	390
2	A105_06474T0	Z519_05898T0	40.44	366	154	6	14	370	10	320	4.00E-94	287
5	A105_09608T0	Z519_07265T0	40.5	479	274	7	10	483	2	474	9.00E-109	335
132	A105_09979T0	Z519_04274T0	40.52	269	142	6	7	264	14	275	3.00E-56	184
76	A105_00344T0	Z519_04128T0	40.57	488	279	5	28	514	26	503	1.00E-113	349
1	A105_10585T0	Z519_08700T0	40.58	69	39	1	325	391	262	330	7.00E-08	53.9
19	A105_12546T0	Z519_04092T0	40.58	138	77	2	1	133	374	511	2.00E-24	98.2
4	A105_01367T0	Z519_09297T0	40.62	224	130	3	8	231	6	226	2.00E-48	161
2	A105_10976T0	Z519_01363T0	40.62	96	57	0	1	96	231	326	6.00E-22	90.1
92	A105_09406T0	Z519_08932T0	40.78	255	137	5	13	260	22	269	3.00E-57	186
149	A105_12903T0	Z519_01170T0	40.79	505	293	4	34	536	5	505	3.00E-127	386
56	A105_06084T0	Z519_02845T0	40.8	522	273	4	2	491	3	520	3.00E-131	394
96	A105_04472T0	Z519_05611T0	40.82	539	305	7	6	534	25	559	4.00E-133	405
21	A105_00912T0	Z519_05912T0	40.91	550	298	8	2	532	3	544	3.00E-141	421
3	A105_01403T0	Z519_06269T0	40.91	132	43	2	1	97	100	231	9.00E-24	92.4
1	A105_13003T0	Z519_11204T0	40.91	66	38	1	1	66	137	201	3.00E-08	48.5
56	A105_00788T0	Z519_09186T0	40.93	474	273	4	137	609	290	757	1.00E-123	389
147	A105_01718T0	Z519_00949T0	40.94	469	263	7	32	495	31	490	9.00E-110	337
9	A105_03326T0	Z519_07130T0	40.94	635	304	16	4	612	605	1194	4.00E-123	415
3	A105_02387T0	Z519_01457T0	40.96	83	47	2	12	92	345	427	7.00E-12	60.5
143	A105_10632T0	Z519_00660T0	40.99	505	276	9	36	533	1	490	2.00E-129	390
174	A105_11301T0	Z519_08671T0	41	261	147	3	11	267	4	261	2.00E-64	205
70	A105_00773T0	Z519_08669T0	41.03	524	284	4	68	588	50	551	4.00E-134	406
1	A105_00818T0	Z519_06843T0	41.07	56	32	1	23	78	21	75	2.00E-06	44.7
1	A105_09953T0	Z519_11004T0	41.1	73	38	3	3	72	2	72	4.00E-13	59.3
39	A105_10633T0	Z519_07908T0	41.1	455	259	5	25	472	19	471	6.00E-101	314
83	A105_08107T0	Z519_12418T0	41.11	523	291	6	6	523	4	514	2.00E-138	414
8	A105_04527T0	Z519_05149T0	41.13	124	73	0	10	133	11	134	2.00E-23	93.2
2	A105_04337T0	Z519_03872T0	41.24	177	102	2	2	177	7	182	3.00E-42	142

7	A105_07210T0	Z519_12289T0	41.25	80	47	0	48	127	172	251	4.00E-16	73.9
89	A105_00636T0	Z519_05522T0	41.26	475	261	7	23	481	21	493	2.00E-110	338
6	A105_09964T0	Z519_00423T0	41.26	143	73	3	3	138	4	142	2.00E-29	106
2	A105_06506T0	Z519_01507T0	41.27	361	211	1	44	404	50	409	3.00E-106	323
4	A105_12779T0	Z519_08758T0	41.27	126	68	3	1	124	146	267	8.00E-17	75.9
147	A105_12963T0	Z519_03708T0	41.31	472	264	5	14	484	7	466	2.00E-120	367
5	A105_10841T0	Z519_05377T0	41.32	317	169	5	16	319	25	337	4.00E-79	247
8	A105_00331T0	Z519_06009T0	41.33	450	245	5	7	447	873	1312	8.00E-108	349
93	A105_06272T0	Z519_06587T0	41.33	196	110	4	5	199	9	200	2.00E-32	126
3	A105_09276T0	Z519_11713T0	41.35	133	76	1	12	144	5	135	3.00E-28	110
9	A105_00691T0	Z519_04608T0	41.43	140	68	3	1	126	69	208	5.00E-27	105
14	A105_09928T0	Z519_00634T0	41.46	328	166	8	47	360	47	362	7.00E-70	225
28	A105_01765T0	Z519_00660T0	41.48	176	99	3	36	209	5	178	3.00E-39	141
89	A105_06183T0	Z519_08697T0	41.51	542	309	4	20	557	18	555	1.00E-145	434
7	A105_00883T0	Z519_09815T0	41.53	118	67	2	19	136	58	173	3.00E-21	86.3
9	A105_06081T0	Z519_12291T0	41.54	130	54	2	5	112	3	132	1.00E-23	92.4
78	A105_01751T0	Z519_08621T0	41.56	563	328	1	29	591	30	591	1.00E-148	445
15	A105_13368T0	Z519_12284T0	41.57	89	51	1	59	146	83	171	2.00E-17	75.5
1	A105_11479T0	Z519_02329T0	41.58	380	159	12	121	455	69	430	3.00E-64	216
15	A105_00903T0	Z519_11356T0	41.6	125	57	4	1	109	179	303	3.00E-24	94.7
38	A105_11118T0	Z519_00576T0	41.61	322	177	4	5	321	182	497	9.00E-74	238
29	A105_11394T0	Z519_09306T0	41.61	310	163	4	11	305	12	318	5.00E-81	251
9	A105_07717T0	Z519_01007T0	41.67	576	310	12	38	596	26	592	9.00E-146	437
155	A105_04030T0	Z519_11551T0	41.68	487	279	5	4	486	11	496	4.00E-135	403
139	A105_06332T0	Z519_00910T0	41.68	463	240	8	7	457	88	532	3.00E-113	346
155	A105_00977T0	Z519_09038T0	41.72	513	295	3	1	512	1	510	5.00E-139	415
25	A105_10096T0	Z519_11137T0	41.72	314	121	4	1	254	200	511	3.00E-77	246
48	A105_01341T0	Z519_06588T0	41.74	642	329	15	17	621	29	662	2.00E-152	457
53	A105_00637T0	Z519_04344T0	41.75	582	307	8	5	571	14	578	2.00E-139	420
3	A105_11695T0	Z519_08600T0	41.83	251	63	6	1	184	1	235	7.00E-45	151
15	A105_08629T0	Z519_08369T0	41.87	203	73	5	6	183	2	184	2.00E-40	137
118	A105_09621T0	Z519_07442T0	41.89	475	244	7	2	453	29	494	4.00E-117	356
5	A105_11536T0	Z519_10184T0	41.89	74	43	0	3	76	187	260	7.00E-14	63.9
66	A105_10866T0	Z519_11404T0	41.92	167	64	4	1	157	1	144	2.00E-28	103
44	A105_12801T0	Z519_06832T0	41.95	329	142	5	43	330	188	508	2.00E-76	247

5	A105_09623T0	Z519_01860T0	41.98	81	45	1	26	104	161	241	7.00E-15	72.4
6	A105_05480T0	Z519_01294T0	42.02	307	168	4	14	319	9	306	4.00E-77	242
1	A105_03324T0	Z519_11136T0	42.03	395	188	5	5	358	14	408	1.00E-85	267
59	A105_09534T0	Z519_00958T0	42.03	533	304	4	25	556	26	554	9.00E-128	389
60	A105_04341T0	Z519_12418T0	42.08	499	276	7	2	495	26	516	6.00E-136	407
20	A105_09612T0	Z519_01249T0	42.09	537	232	11	12	472	165	698	9.00E-127	399
39	A105_11600T0	Z519_04793T0	42.16	472	244	6	4	457	47	507	2.00E-113	346
39	A105_10627T0	Z519_07908T0	42.17	479	265	3	20	490	26	500	8.00E-127	382
77	A105_06090T0	Z519_12549T0	42.21	526	297	4	11	535	29	548	4.00E-137	414
2	A105_10240T0	Z519_03056T0	42.25	71	37	1	20	86	246	316	5.00E-14	65.9
3	A105_13089T0	Z519_10898T0	42.26	168	43	4	1	114	284	451	4.00E-30	114
117	A105_10847T0	Z519_06914T0	42.28	447	238	8	28	466	54	488	2.00E-111	343
3	A105_06031T0	Z519_11080T0	42.31	52	29	1	4	55	444	494	6.00E-08	47.8
2	A105_12047T0	Z519_02455T0	42.31	78	43	2	78	155	101	176	7.00E-11	58.9
15	A105_00905T0	Z519_08369T0	42.35	85	43	2	39	122	84	163	5.00E-13	62.4
5	A105_10580T0	Z519_05512T0	42.35	196	96	3	2	180	77	272	1.00E-44	150
6	A105_08318T0	Z519_05386T0	42.36	144	67	2	9	152	206	333	2.00E-31	118
65	A105_02068T0	Z519_07621T0	42.44	655	362	7	22	671	10	654	1.00E-170	517
27	A105_06434T0	Z519_04573T0	42.48	113	48	2	2	114	346	441	1.00E-21	89
11	A105_05319T0	Z519_03012T0	42.5	593	292	10	11	555	6	597	3.00E-161	476
139	A105_11587T0	Z519_04611T0	42.5	280	136	6	18	294	11	268	2.00E-65	209
30	A105_06186T0	Z519_02043T0	42.55	322	178	4	1	316	1	321	8.00E-71	224
12	A105_00642T0	Z519_00088T0	42.56	289	140	7	2	281	7	278	2.00E-71	223
50	A105_04328T0	Z519_12783T0	42.59	425	242	2	214	637	10	433	5.00E-119	368
1	A105_07489T0	Z519_05979T0	42.59	54	28	2	43	93	552	605	8.00E-06	42.4
42	A105_08670T0	Z519_02812T0	42.59	108	61	1	1	108	50	156	1.00E-23	95.1
2	A105_09392T0	Z519_00408T0	42.62	61	35	0	8	68	14	74	7.00E-12	57
33	A105_06521T0	Z519_04779T0	42.64	326	182	4	4	324	11	336	5.00E-83	257
113	A105_06271T0	Z519_05635T0	42.68	567	282	6	26	553	7	569	2.00E-171	500
1	A105_00327T0	Z519_00336T0	42.7	89	27	3	1	65	1	89	5.00E-12	58.2
30	A105_01172T0	Z519_11758T0	42.7	267	147	5	6	270	7	269	3.00E-66	211
10	A105_01567T0	Z519_03382T0	42.73	433	238	6	40	465	17	446	4.00E-111	346
9	A105_05208T0	Z519_10351T0	42.75	276	135	5	2	260	1	270	2.00E-67	213
45	A105_04999T0	Z519_03868T0	42.77	311	170	6	1	309	122	426	3.00E-79	252
33	A105_12303T0	Z519_12565T0	42.83	509	277	5	3	504	103	604	2.00E-138	416

6 A105_12675T0	Z519_12728T0	42.84	978	526	9	1	976	1	947	0	771
15 A105_12460T0	Z519_12759T0	42.86	196	92	3	14	192	57	249	1.00E-47	161
1 A105_13273T0	Z519_03183T0	42.86	77	44	0	11	87	120	196	3.00E-18	76.3
24 A105_09927T0	Z519_07556T0	42.91	543	300	7	3	537	2	542	1.00E-135	407
121 A105_00345T0	Z519_04778T0	42.93	396	218	4	2	396	122	510	2.00E-103	319
160 A105_08099T0	Z519_11308T0	42.97	498	277	3	1	491	1	498	4.00E-128	386
7 A105_10840T0	Z519_07574T0	42.99	442	242	5	8	441	190	629	1.00E-120	369
7 A105_13416T0	Z519_04242T0	43.02	86	45	2	1	82	1	86	3.00E-19	79
53 A105_05632T0	Z519_01724T0	43.09	123	70	0	17	139	5	127	1.00E-30	112
59 A105_09506T0	Z519_12261T0	43.15	540	292	7	35	562	5	541	4.00E-138	416
103 A105_06218T0	Z519_05635T0	43.18	572	315	7	10	580	7	569	2.00E-175	512
49 A105_04825T0	Z519_05541T0	43.19	301	132	4	4	266	206	505	6.00E-68	223
2 A105_12976T0	Z519_06447T0	43.22	199	111	1	1	199	89	285	2.00E-46	162
6 A105_09705T0	Z519_03385T0	43.26	215	85	1	29	206	31	245	6.00E-53	175
3 A105_03115T0	Z519_06068T0	43.28	67	37	1	1	67	503	568	3.00E-12	60.8
149 A105_01346T0	Z519_09996T0	43.29	499	282	1	7	504	7	505	8.00E-144	427
23 A105_09598T0	Z519_05854T0	43.29	365	187	7	18	377	10	359	4.00E-76	247
6 A105_03459T0	Z519_09584T0	43.33	300	144	8	1	291	84	366	3.00E-48	175
80 A105_09413T0	Z519_11807T0	43.41	592	300	8	2	590	16	575	6.00E-164	483
190 A105_01763T0	Z519_12292T0	43.43	251	137	2	4	252	3	250	5.00E-65	205
162 A105_05616T0	Z519_03515T0	43.44	488	255	8	14	486	19	500	1.00E-126	382
8 A105_05121T0	Z519_09606T0	43.53	85	42	2	1	85	296	374	1.00E-16	74.3
7 A105_11419T0	Z519_04078T0	43.56	613	329	10	2	609	4	604	3.00E-171	503
3 A105_01684T0	Z519_11897T0	43.62	149	68	1	1	133	291	439	7.00E-31	114
9 A105_11317T0	Z519_02856T0	43.64	55	31	0	1	55	53	107	4.00E-11	55.1
155 A105_00995T0	Z519_01828T0	43.65	504	268	5	24	527	6	493	2.00E-142	424
8 A105_05637T0	Z519_09499T0	43.65	252	136	3	4	250	14	264	4.00E-66	209
16 A105_12298T0	Z519_10297T0	43.67	158	85	2	2	155	4	161	1.00E-39	135
177 A105_01762T0	Z519_12292T0	43.7	254	130	4	5	251	4	251	4.00E-61	195
99 A105_00808T0	Z519_04891T0	43.72	629	337	11	18	642	49	664	0	541
2 A105_13045T0	Z519_06170T0	43.72	231	95	5	1	197	38	267	2.00E-52	173
2 A105_08098T0	Z519_03872T0	43.75	176	97	2	2	176	7	181	6.00E-45	149
3 A105_02804T0	Z519_00546T0	43.81	493	230	10	21	467	21	512	5.00E-116	354
167 A105_10849T0	Z519_03515T0	43.82	502	269	4	2	495	14	510	1.00E-140	417
14 A105_00663T0	Z519_04438T0	43.86	228	118	5	20	240	23	247	9.00E-50	181

1	A105_05193T0	Z519_11435T0	43.93	667	357	11	8	667	1	657	0	553
19	A105_00782T0	Z519_08610T0	43.96	273	104	3	4	227	2	274	6.00E-76	234
39	A105_00348T0	Z519_04794T0	44	375	202	3	3	377	12	378	3.00E-92	284
5	A105_04945T0	Z519_04526T0	44.01	543	211	19	1	542	1	451	1.00E-119	363
3	A105_06357T0	Z519_05293T0	44.12	306	155	3	1	293	58	360	2.00E-87	282
1	A105_07509T0	Z519_06075T0	44.12	102	49	2	71	164	2	103	7.00E-16	70.5
2	A105_05857T0	Z519_06561T0	44.19	86	47	1	1	85	52	137	2.00E-17	72
10	A105_12906T0	Z519_03222T0	44.19	310	170	2	2	308	14	323	4.00E-95	289
42	A105_02063T0	Z519_03034T0	44.21	475	261	4	16	488	13	485	5.00E-138	410
119	A105_00794T0	Z519_12418T0	44.25	522	277	5	8	516	6	526	7.00E-163	476
14	A105_01757T0	Z519_07000T0	44.27	192	94	2	1	192	1	179	4.00E-53	170
73	A105_06808T0	Z519_06468T0	44.31	571	285	7	8	577	12	550	2.00E-153	455
5	A105_01756T0	Z519_06405T0	44.33	564	304	5	9	563	13	575	3.00E-155	462
15	A105_01291T0	Z519_07062T0	44.35	345	165	9	5	333	21	354	6.00E-76	246
113	A105_09590T0	Z519_06914T0	44.38	516	280	4	33	547	30	539	2.00E-160	472
4	A105_05478T0	Z519_07694T0	44.39	401	194	6	56	428	62	461	8.00E-111	337
3	A105_13290T0	Z519_09019T0	44.4	259	136	3	20	277	32	283	1.00E-66	213
98	A105_06467T0	Z519_08438T0	44.42	556	293	8	18	558	11	565	9.00E-169	494
2	A105_04237T0	Z519_05780T0	44.44	54	30	0	13	66	10	63	5.00E-08	46.6
102	A105_08110T0	Z519_04169T0	44.44	288	154	3	3	289	15	297	1.00E-78	243
1	A105_10625T0	Z519_04410T0	44.44	135	73	1	25	157	10	144	4.00E-36	126
1	A105_12668T0	Z519_07627T0	44.52	155	80	1	49	197	1	155	7.00E-42	141
10	A105_06843T0	Z519_09509T0	44.53	393	199	7	24	407	6	388	3.00E-119	355
2	A105_03885T0	Z519_00681T0	44.54	119	65	1	1	119	90	207	3.00E-31	114
74	A105_13425T0	Z519_08871T0	44.55	321	170	3	13	330	26	341	6.00E-99	307
3	A105_02427T0	Z519_04316T0	44.57	267	128	8	2	258	4	260	5.00E-58	188
165	A105_05639T0	Z519_04929T0	44.57	267	135	7	9	268	5	265	1.00E-63	202
48	A105_06645T0	Z519_02848T0	44.59	370	193	7	5	371	65	425	2.00E-104	317
95	A105_08283T0	Z519_12171T0	44.67	244	133	1	8	251	2	243	1.00E-77	238
4	A105_03237T0	Z519_04515T0	44.69	414	218	6	1	407	1	410	1.00E-100	308
15	A105_13265T0	Z519_05388T0	44.72	284	150	3	7	284	26	308	3.00E-77	241
1	A105_08230T0	Z519_06940T0	44.74	76	39	2	2	75	3	77	3.00E-12	60.5
12	A105_04991T0	Z519_07909T0	44.76	487	260	5	3	488	4	482	7.00E-142	420
139	A105_13382T0	Z519_06914T0	44.76	525	281	6	36	555	21	541	2.00E-156	462
1	A105_01393T0	Z519_11877T0	44.79	96	52	1	2	97	237	331	4.00E-19	79.7

98	A105_09231T0	Z519_10091T0	44.8	558	296	6	56	610	63	611	4.00E-175	515
64	A105_09973T0	Z519_02471T0	44.8	625	313	11	1	609	123	731	1.00E-173	523
9	A105_02192T0	Z519_05264T0	44.83	87	47	1	1	86	30	116	4.00E-15	66.6
9	A105_13471T0	Z519_05264T0	44.83	87	47	1	1	86	30	116	4.00E-15	66.6
39	A105_01760T0	Z519_03034T0	44.84	339	183	4	13	349	7	343	3.00E-92	286
20	A105_01097T0	Z519_05896T0	44.85	194	103	2	59	249	6	198	7.00E-53	177
14	A105_09980T0	Z519_09313T0	44.91	334	165	6	4	326	5	330	2.00E-89	273
92	A105_00880T0	Z519_09223T0	44.96	238	115	4	1	228	245	476	2.00E-57	192
3	A105_01777T0	Z519_04719T0	45	240	112	5	1	236	182	405	4.00E-54	186
12	A105_01775T0	Z519_10338T0	45.05	444	214	8	46	459	33	476	4.00E-114	347
121	A105_06517T0	Z519_02446T0	45.07	983	510	9	1	981	1	955	0	828
181	A105_11313T0	Z519_06036T0	45.1	255	131	5	1	248	4	256	1.00E-61	197
4	A105_02194T0	Z519_05422T0	45.16	93	50	1	2	94	3	94	1.00E-18	80.1
103	A105_06201T0	Z519_04891T0	45.16	640	325	8	20	655	47	664	0	568
11	A105_07255T0	Z519_03734T0	45.26	274	140	2	966	1237	5	270	9.00E-69	236
101	A105_08592T0	Z519_08438T0	45.26	559	282	9	45	583	11	565	4.00E-177	517
40	A105_05589T0	Z519_02886T0	45.28	159	70	2	1	145	426	581	2.00E-39	140
6	A105_11320T0	Z519_10199T0	45.34	322	153	8	8	310	67	384	2.00E-88	272
146	A105_05590T0	Z519_06686T0	45.35	419	199	8	1	407	4	404	3.00E-118	358
14	A105_12469T0	Z519_02899T0	45.36	291	134	4	36	312	126	405	2.00E-79	251
22	A105_05363T0	Z519_04639T0	45.37	518	193	10	21	453	74	586	6.00E-121	403
9	A105_05624T0	Z519_01134T0	45.39	575	299	6	4	570	30	597	1.00E-178	521
3	A105_06711T0	Z519_04907T0	45.41	370	172	3	1	340	63	432	8.00E-110	336
20	A105_08626T0	Z519_08890T0	45.41	229	98	2	1	202	1	229	3.00E-55	181
15	A105_12477T0	Z519_10664T0	45.42	251	131	4	3	249	229	477	7.00E-65	211
123	A105_09615T0	Z519_06616T0	45.45	198	91	2	5	185	4	201	4.00E-49	167
100	A105_06780T0	Z519_10091T0	45.49	554	293	5	8	556	61	610	7.00E-179	524
3	A105_12048T0	Z519_10646T0	45.56	90	49	0	14	103	19	108	8.00E-18	78.6
3	A105_04935T0	Z519_02759T0	45.61	171	37	5	33	167	3	153	5.00E-33	118
95	A105_06338T0	Z519_10091T0	45.65	563	297	6	2	562	56	611	4.00E-177	518
1	A105_09135T0	Z519_10173T0	45.65	46	25	0	40	85	120	165	1.00E-06	46.2
146	A105_10865T0	Z519_01837T0	45.74	223	116	1	44	266	41	258	1.00E-62	210
8	A105_05746T0	Z519_06923T0	45.75	306	153	6	1	298	3	303	5.00E-85	261
10	A105_11586T0	Z519_12280T0	45.76	59	30	1	70	126	206	264	2.00E-09	53.5
17	A105_03322T0	Z519_06594T0	45.82	838	431	10	69	897	28	851	0	693

1	A105_09530T0	Z519_01507T0	45.86	362	185	1	14	364	45	406	3.00E-105	329
31	A105_10623T0	Z519_05600T0	45.86	338	172	3	3	337	5	334	6.00E-99	299
209	A105_08926T0	Z519_06036T0	45.88	255	127	4	5	251	6	257	3.00E-66	208
133	A105_05485T0	Z519_12217T0	45.93	405	192	4	28	407	1	403	2.00E-125	374
1	A105_02879T0	Z519_07410T0	46.01	213	75	4	1	210	1	176	3.00E-41	141
180	A105_11443T0	Z519_05876T0	46.04	265	131	2	56	313	57	316	2.00E-73	231
4	A105_06204T0	Z519_11287T0	46.05	367	182	7	17	377	18	374	6.00E-102	309
8	A105_07828T0	Z519_02256T0	46.08	204	103	5	20	220	42	241	4.00E-47	171
65	A105_10011T0	Z519_09342T0	46.15	130	69	1	3	132	14	142	7.00E-36	130
177	A105_12180T0	Z519_09317T0	46.22	251	130	1	5	250	3	253	2.00E-68	214
2	A105_03814T0	Z519_07624T0	46.3	54	29	0	78	131	73	126	1.00E-13	63.5
120	A105_00777T0	Z519_08667T0	46.44	450	229	7	27	471	3	445	1.00E-132	394
1	A105_12663T0	Z519_02563T0	46.46	127	67	1	1	126	40	166	4.00E-36	126
1	A105_07299T0	Z519_11234T0	46.51	43	23	0	13	55	273	315	2.00E-06	43.1
31	A105_09947T0	Z519_10589T0	46.51	845	390	14	7	805	10	838	0	667
15	A105_10386T0	Z519_12284T0	46.51	86	43	2	61	145	88	171	7.00E-20	82
135	A105_02054T0	Z519_06587T0	46.62	888	422	8	3	843	12	894	0	798
12	A105_07266T0	Z519_07770T0	46.63	341	168	5	44	382	6	334	2.00E-90	291
15	A105_01463T0	Z519_00397T0	46.67	510	257	7	23	528	27	525	2.00E-156	462
48	A105_12550T0	Z519_10873T0	46.67	330	166	5	30	355	31	354	3.00E-89	275
2	A105_07715T0	Z519_01507T0	46.68	407	189	4	2	381	1	406	2.00E-130	385
1	A105_12101T0	Z519_09495T0	46.71	304	160	2	5	308	4	305	6.00E-83	272
40	A105_09405T0	Z519_02306T0	46.72	488	241	3	7	493	12	481	2.00E-152	447
2	A105_06477T0	Z519_03257T0	46.75	77	39	1	2	78	2	76	6.00E-18	73.9
204	A105_04329T0	Z519_12292T0	46.77	248	130	1	1	246	1	248	9.00E-76	233
14	A105_04990T0	Z519_10854T0	46.82	173	92	0	2	174	396	568	8.00E-55	187
17	A105_06192T0	Z519_04719T0	46.89	595	301	5	46	625	14	608	0	551
53	A105_11583T0	Z519_12292T0	46.9	145	72	1	10	154	41	180	3.00E-38	132
4	A105_06270T0	Z519_09135T0	46.97	577	261	7	53	603	74	631	1.00E-173	511
10	A105_07120T0	Z519_03012T0	46.99	581	282	9	43	603	25	599	0	536
1	A105_02930T0	Z519_09789T0	47.13	157	81	1	34	188	48	204	2.00E-42	153
6	A105_00784T0	Z519_08678T0	47.15	123	63	2	18	140	15	135	6.00E-33	115
144	A105_00906T0	Z519_11014T0	47.21	305	156	3	1	302	8	310	5.00E-92	279
40	A105_09914T0	Z519_03034T0	47.25	472	245	4	15	484	13	482	6.00E-144	425
1	A105_12900T0	Z519_03627T0	47.32	112	56	2	2	111	3	113	5.00E-26	95.1

19 A105_01772T0	Z519_07607T0	47.33	281	140	5	1	273	1	281	2.00E-81	249
3 A105_13460T0	Z519_06754T0	47.37	95	50	0	1	95	144	238	6.00E-19	78.6
81 A105_03316T0	Z519_10654T0	47.39	306	146	6	8	308	10	305	6.00E-70	254
7 A105_06222T0	Z519_01538T0	47.41	599	296	7	3	583	9	606	0	535
75 A105_08555T0	Z519_04790T0	47.42	523	262	4	4	520	18	533	6.00E-157	461
12 A105_02060T0	Z519_10338T0	47.49	438	208	7	28	443	33	470	5.00E-128	383
72 A105_08103T0	Z519_08667T0	47.49	179	88	2	1	179	228	400	4.00E-58	190
61 A105_04029T0	Z519_01989T0	47.52	545	271	6	2	545	3	533	8.00E-172	501
4 A105_08358T0	Z519_02676T0	47.53	324	167	1	1	321	181	504	6.00E-108	327
143 A105_11307T0	Z519_00174T0	47.62	294	133	5	12	285	12	304	1.00E-86	264
2 A105_06297T0	Z519_09979T0	47.65	149	67	2	34	172	13	160	4.00E-35	122
24 A105_10848T0	Z519_01149T0	47.69	346	154	8	13	348	17	345	5.00E-93	284
19 A105_08108T0	Z519_08610T0	47.7	283	129	3	4	269	2	282	1.00E-86	263
113 A105_02153T0	Z519_10756T0	47.74	155	77	3	5	155	93	247	5.00E-41	139
69 A105_04026T0	Z519_03061T0	47.79	542	278	2	1	542	1	537	0	538
87 A105_09589T0	Z519_03602T0	47.79	452	235	1	30	480	34	485	3.00E-162	471
87 A105_06646T0	Z519_01876T0	47.94	486	244	6	20	498	7	490	5.00E-147	435
5 A105_00979T0	Z519_02842T0	47.96	221	113	2	1	220	42	261	1.00E-70	219
1 A105_03318T0	Z519_12077T0	47.97	123	51	3	13	135	223	332	3.00E-12	61.6
4 A105_10084T0	Z519_09309T0	47.97	148	73	3	4	147	134	281	2.00E-40	139
1 A105_11911T0	Z519_11143T0	48	100	45	1	1	93	193	292	8.00E-27	100
80 A105_02426T0	Z519_10242T0	48.03	610	261	5	3	556	7	616	0	561
8 A105_13261T0	Z519_10367T0	48.03	381	166	6	5	358	7	382	3.00E-112	335
47 A105_13364T0	Z519_03511T0	48.09	131	67	1	6	135	13	143	1.00E-31	115
99 A105_01191T0	Z519_11788T0	48.15	513	254	5	145	648	56	565	7.00E-137	418
1 A105_09538T0	Z519_02242T0	48.18	137	71	0	14	150	229	365	2.00E-41	145
3 A105_11176T0	Z519_08902T0	48.21	112	22	3	63	164	1	86	8.00E-21	85.5
34 A105_11535T0	Z519_12628T0	48.21	224	48	3	14	177	130	345	5.00E-56	185
56 A105_00347T0	Z519_03564T0	48.23	396	200	3	1	393	23	416	2.00E-124	370
142 A105_05638T0	Z519_11777T0	48.23	479	241	5	38	514	30	503	1.00E-160	469
21 A105_00030T0	Z519_05770T0	48.33	329	151	4	3	313	2	329	2.00E-94	285
3 A105_05576T0	Z519_03689T0	48.34	151	67	5	1	146	1	145	2.00E-35	125
3 A105_07070T0	Z519_07969T0	48.35	91	47	0	14	104	672	762	8.00E-21	87.4
3 A105_06029T0	Z519_08008T0	48.39	467	211	7	14	478	31	469	3.00E-137	407
32 A105_12302T0	Z519_12554T0	48.4	407	205	4	2	403	4	410	6.00E-135	396

40	A105_00343T0	Z519_10431T0	48.42	475	240	3	21	490	24	498	2.00E-157	460
1	A105_06501T0	Z519_06670T0	48.44	192	69	3	1	162	37	228	5.00E-35	125
31	A105_07071T0	Z519_05554T0	48.44	64	33	0	6	69	141	204	1.00E-14	67.4
40	A105_01784T0	Z519_08264T0	48.46	681	324	9	7	684	1	657	0	639
1	A105_07064T0	Z519_06436T0	48.5	167	35	5	5	120	60	226	1.00E-36	126
4	A105_08633T0	Z519_12564T0	48.52	439	202	2	17	434	12	447	1.00E-144	424
8	A105_06040T0	Z519_02270T0	48.53	136	70	0	1	136	211	346	2.00E-31	119
50	A105_00804T0	Z519_08681T0	48.54	445	229	0	18	462	17	461	2.00E-162	471
56	A105_10942T0	Z519_12558T0	48.62	253	130	0	15	267	25	277	3.00E-77	248
111	A105_08100T0	Z519_10309T0	48.64	257	123	3	8	258	4	257	5.00E-80	244
1	A105_05494T0	Z519_09173T0	48.67	113	58	0	1	113	2	114	9.00E-29	102
105	A105_04034T0	Z519_00227T0	48.7	538	268	3	18	555	9	538	0	536
11	A105_10622T0	Z519_02489T0	48.7	347	175	3	1	345	1	346	2.00E-110	329
2	A105_00581T0	Z519_00891T0	48.72	78	40	0	1	78	88	165	5.00E-21	86.7
81	A105_08932T0	Z519_03444T0	48.76	283	130	5	1	271	1	280	7.00E-81	248
11	A105_13379T0	Z519_00001T0	48.78	572	282	3	5	566	7	577	0	596
35	A105_11416T0	Z519_03034T0	48.85	131	67	0	9	139	353	483	2.00E-37	133
26	A105_09595T0	Z519_05854T0	48.87	444	219	3	14	457	13	448	7.00E-139	410
4	A105_02193T0	Z519_03753T0	48.91	92	33	2	1	78	312	403	6.00E-20	82.4
68	A105_03223T0	Z519_04223T0	48.91	599	297	5	8	601	3	597	0	553
4	A105_02378T0	Z519_03659T0	48.93	515	200	8	57	513	70	579	2.00E-149	450
8	A105_11585T0	Z519_01403T0	48.97	484	227	3	1	465	210	692	3.00E-167	491
1	A105_06772T0	Z519_06728T0	48.98	98	21	1	17	85	32	129	3.00E-20	79.3
12	A105_09531T0	Z519_00753T0	49.02	255	125	4	1	252	1	253	7.00E-81	246
107	A105_00786T0	Z519_06914T0	49.03	514	252	5	26	534	31	539	1.00E-179	520
59	A105_05202T0	Z519_02282T0	49.06	583	290	4	1	579	1	580	0	612
1	A105_10326T0	Z519_10993T0	49.08	218	63	6	1	182	8	213	9.00E-51	164
2	A105_03761T0	Z519_11028T0	49.09	55	28	0	80	134	174	228	3.00E-07	48.1
6	A105_06632T0	Z519_10119T0	49.21	63	31	1	62	123	14	76	9.00E-13	67.8
14	A105_02061T0	Z519_04719T0	49.24	589	290	5	24	604	15	602	0	545
97	A105_09983T0	Z519_05882T0	49.24	591	279	2	17	606	25	595	0	624
5	A105_08628T0	Z519_12230T0	49.25	134	67	1	5	137	6	139	3.00E-39	132
13	A105_00252T0	Z519_07062T0	49.28	349	169	4	2	343	10	357	3.00E-108	331
93	A105_07289T0	Z519_09471T0	49.3	503	249	2	7	505	22	522	3.00E-172	499
3	A105_11116T0	Z519_08398T0	49.38	160	80	1	32	190	34	193	5.00E-44	155

3	A105_06061T0	Z519_04336T0	49.39	494	235	3	1	481	72	563	2.00E-165	483
10	A105_10965T0	Z519_08356T0	49.45	275	78	3	11	285	171	384	7.00E-65	213
152	A105_00332T0	Z519_01924T0	49.49	487	239	4	7	489	12	495	1.00E-170	496
2	A105_02722T0	Z519_09157T0	49.53	107	50	1	2	108	153	255	1.00E-29	109
99	A105_07695T0	Z519_00923T0	49.54	547	274	2	1	547	1	545	0	581
49	A105_00796T0	Z519_08681T0	49.55	446	224	1	20	465	16	460	7.00E-157	456
1	A105_12671T0	Z519_09526T0	49.58	238	116	3	62	297	23	258	6.00E-66	223
184	A105_09399T0	Z519_09317T0	49.61	254	119	3	7	255	4	253	9.00E-76	233
184	A105_09981T0	Z519_12292T0	49.61	256	114	5	6	253	4	252	2.00E-74	229
24	A105_07694T0	Z519_00906T0	49.67	608	262	7	36	625	246	827	0	538
1	A105_10917T0	Z519_11457T0	49.68	157	59	7	2	153	26	167	5.00E-28	106
7	A105_12461T0	Z519_04078T0	49.68	620	278	7	28	634	7	605	0	608
39	A105_09984T0	Z519_02306T0	49.79	470	226	2	7	466	12	481	6.00E-159	462
23	A105_00884T0	Z519_09815T0	50	264	129	3	1	264	1	261	2.00E-85	258
9	A105_01634T0	Z519_02935T0	50	170	56	2	24	193	8	148	1.00E-47	156
8	A105_03657T0	Z519_04406T0	50	62	30	1	3	63	271	332	1.00E-13	63.9
8	A105_05001T0	Z519_09509T0	50	388	186	4	10	394	9	391	4.00E-147	426
20	A105_06092T0	Z519_07264T0	50	138	68	1	16	152	17	154	7.00E-39	136
3	A105_06154T0	Z519_05690T0	50	54	23	1	2	51	85	138	4.00E-11	58.2
12	A105_06202T0	Z519_10338T0	50	420	190	7	67	467	43	461	3.00E-127	382
1	A105_06532T0	Z519_00211T0	50	54	27	0	24	77	1	54	1.00E-11	58.9
20	A105_09725T0	Z519_09113T0	50	68	34	0	1	68	860	927	1.00E-14	67.4
49	A105_10845T0	Z519_03868T0	50	364	174	4	7	369	97	453	2.00E-127	378
3	A105_13363T0	Z519_03511T0	50	158	76	2	1	155	155	312	2.00E-45	153
21	A105_03325T0	Z519_07140T0	50.05	967	429	17	124	1046	263	1219	0	911
31	A105_11807T0	Z519_02860T0	50.09	583	276	7	8	587	4	574	0	563
20	A105_12635T0	Z519_11021T0	50.17	299	138	4	1	296	5	295	3.00E-100	298
8	A105_09926T0	Z519_05604T0	50.23	444	203	3	10	436	12	454	9.00E-159	459
34	A105_01759T0	Z519_03034T0	50.36	137	68	0	1	137	346	482	5.00E-41	143
2	A105_10850T0	Z519_08866T0	50.36	413	176	7	11	419	7	394	1.00E-133	393
2	A105_08934T0	Z519_08602T0	50.46	109	49	1	27	135	18	121	3.00E-27	100
96	A105_05640T0	Z519_09501T0	50.51	491	198	3	29	519	49	494	1.00E-165	483
2	A105_13049T0	Z519_02907T0	50.56	89	36	2	46	126	104	192	7.00E-21	84.7
3	A105_03635T0	Z519_09765T0	50.6	168	41	4	17	142	75	242	1.00E-41	147
6	A105_05007T0	Z519_04346T0	50.67	75	37	0	1	75	96	170	9.00E-19	76.6

14	A105_13074T0	Z519_09503T0	50.73	481	230	4	1	480	360	834	3.00E-164	494
6	A105_06421T0	Z519_10620T0	50.74	203	39	4	1	203	1	142	3.00E-53	173
123	A105_00811T0	Z519_12418T0	50.78	516	248	4	5	516	1	514	0	528
39	A105_05002T0	Z519_02330T0	50.84	419	200	4	6	420	75	491	2.00E-145	427
5	A105_12678T0	Z519_03107T0	50.86	464	205	2	8	448	2	465	3.00E-169	489
88	A105_12797T0	Z519_04330T0	50.94	159	76	1	1	157	1	159	3.00E-46	158
2	A105_00780T0	Z519_03872T0	51.01	149	71	2	9	156	31	178	7.00E-47	153
13	A105_11426T0	Z519_08945T0	51.02	49	23	1	1	49	361	408	2.00E-10	56.2
7	A105_01715T0	Z519_10823T0	51.05	809	340	13	65	865	57	817	0	752
24	A105_08097T0	Z519_09186T0	51.05	427	207	2	1	426	332	757	2.00E-143	435
6	A105_02160T0	Z519_10679T0	51.15	174	78	2	5	171	2	175	9.00E-59	183
179	A105_13372T0	Z519_05573T0	51.15	262	108	5	4	247	6	265	4.00E-67	211
30	A105_00806T0	Z519_09186T0	51.17	469	228	1	141	609	284	751	2.00E-163	495
20	A105_10771T0	Z519_06616T0	51.19	84	41	0	3	86	316	399	4.00E-25	97.4
6	A105_02161T0	Z519_05833T0	51.28	273	107	1	1	247	1	273	4.00E-90	271
20	A105_09186T0	Z519_05298T0	51.29	310	76	5	373	609	1	308	5.00E-77	252
4	A105_08631T0	Z519_10822T0	51.32	302	138	3	14	314	20	313	3.00E-105	313
152	A105_00644T0	Z519_06612T0	51.37	255	118	2	12	260	18	272	1.00E-92	277
17	A105_00803T0	Z519_06915T0	51.37	584	263	10	37	613	181	750	0	583
11	A105_12522T0	Z519_11019T0	51.37	183	86	2	21	202	91	271	6.00E-53	179
5	A105_01586T0	Z519_04089T0	51.39	72	31	1	1	68	488	559	1.00E-18	79.7
95	A105_11814T0	Z519_09188T0	51.4	535	253	4	18	547	19	551	0	597
157	A105_02918T0	Z519_06203T0	51.45	519	238	6	2	516	12	520	3.00E-178	516
6	A105_09533T0	Z519_10679T0	51.45	173	77	3	7	174	3	173	9.00E-52	166
87	A105_02198T0	Z519_05916T0	51.53	555	269	0	1	555	1	555	0	611
7	A105_06714T0	Z519_04339T0	51.68	596	260	9	3	579	6	592	0	598
142	A105_11941T0	Z519_04665T0	51.79	224	108	0	1	224	36	259	2.00E-78	239
203	A105_00791T0	Z519_12292T0	51.82	247	114	2	1	245	4	247	7.00E-81	246
1	A105_12965T0	Z519_01507T0	51.82	110	48	1	83	187	4	113	3.00E-32	120
9	A105_12979T0	Z519_00710T0	51.9	79	38	0	2	80	177	255	2.00E-22	90.1
6	A105_07117T0	Z519_11017T0	51.95	462	210	7	23	477	21	477	1.00E-155	457
42	A105_02339T0	Z519_03576T0	51.98	479	224	5	8	484	3	477	1.00E-156	457
14	A105_11571T0	Z519_10654T0	51.99	277	127	3	8	282	9	281	2.00E-86	281
27	A105_12710T0	Z519_01972T0	52.01	498	216	7	2	482	5	496	2.00E-176	509
52	A105_08106T0	Z519_08603T0	52.03	444	213	0	7	450	15	458	5.00E-176	504

15	A105_11011T0	Z519_12648T0	52.08	96	45	1	1	95	100	195	3.00E-29	107
1	A105_12558T0	Z519_02901T0	52.11	142	68	0	1	142	1	142	7.00E-48	160
141	A105_04900T0	Z519_04868T0	52.14	514	228	6	7	504	4	515	0	546
14	A105_06221T0	Z519_02927T0	52.23	561	254	7	7	555	21	579	0	579
8	A105_09591T0	Z519_12747T0	52.27	463	197	5	6	468	5	443	3.00E-163	472
2	A105_11904T0	Z519_02007T0	52.27	88	33	3	94	175	1	85	4.00E-15	68.2
2	A105_01776T0	Z519_04719T0	52.29	109	50	2	42	148	15	123	1.00E-26	104
1	A105_10339T0	Z519_07141T0	52.31	65	31	0	2	66	457	521	1.00E-10	55.8
157	A105_10385T0	Z519_11014T0	52.32	302	135	4	6	302	13	310	7.00E-103	306
52	A105_00790T0	Z519_08681T0	52.33	451	215	0	11	461	9	459	3.00E-178	511
52	A105_04345T0	Z519_08681T0	52.36	445	209	2	15	457	16	459	9.00E-171	491
14	A105_04770T0	Z519_07027T0	52.38	63	29	1	248	310	282	343	2.00E-17	80.9
1	A105_04960T0	Z519_02784T0	52.41	187	74	5	205	391	2	173	2.00E-49	169
166	A105_06336T0	Z519_05880T0	52.43	494	232	3	32	524	30	521	0	545
2	A105_03353T0	Z519_10177T0	52.54	177	42	5	1	142	1	170	2.00E-41	139
13	A105_02064T0	Z519_08977T0	52.6	308	136	3	1	300	1	306	2.00E-108	325
31	A105_00783T0	Z519_08613T0	52.63	513	218	5	1	506	69	563	0	556
68	A105_00990T0	Z519_12759T0	52.71	351	152	5	1	351	6	342	2.00E-133	387
4	A105_09299T0	Z519_03219T0	52.72	184	87	0	190	373	13	196	6.00E-68	220
1	A105_00210T0	Z519_00211T0	52.74	292	107	6	29	320	185	445	8.00E-77	248
14	A105_05203T0	Z519_03713T0	52.78	432	203	1	11	442	3	433	4.00E-167	481
86	A105_12045T0	Z519_11204T0	52.78	144	63	1	1	139	322	465	3.00E-43	149
6	A105_06070T0	Z519_01512T0	52.8	375	147	6	3	352	12	381	2.00E-129	387
7	A105_01685T0	Z519_11897T0	52.85	193	73	2	2	176	43	235	7.00E-59	193
10	A105_13258T0	Z519_00710T0	52.88	104	47	1	3	104	162	265	3.00E-29	111
1	A105_06903T0	Z519_06596T0	52.94	85	28	3	147	227	104	180	1.00E-11	60.8
39	A105_05739T0	Z519_08916T0	53.02	149	70	0	1	149	422	570	1.00E-44	155
102	A105_01723T0	Z519_12762T0	53.1	548	252	3	1	543	1	548	0	608
165	A105_09410T0	Z519_09799T0	53.1	258	119	2	2	258	1	257	2.00E-88	266
8	A105_11577T0	Z519_08611T0	53.15	555	257	3	34	585	147	701	0	594
4	A105_01134T0	Z519_00985T0	53.19	235	107	2	1	233	313	546	2.00E-76	244
4	A105_01590T0	Z519_08249T0	53.19	94	32	3	2	83	156	249	1.00E-26	102
62	A105_07915T0	Z519_07752T0	53.26	184	44	5	1	172	1	154	2.00E-45	158
14	A105_00875T0	Z519_04766T0	53.27	199	87	1	2	194	98	296	3.00E-73	226
158	A105_06275T0	Z519_06933T0	53.38	517	237	3	6	522	7	519	0	556

19	A105_11810T0	Z519_08610T0	53.38	281	123	2	4	276	3	283	3.00E-104	308
4	A105_11584T0	Z519_01403T0	53.47	144	63	3	48	188	33	175	5.00E-42	150
2	A105_04804T0	Z519_07694T0	53.49	86	34	2	9	93	54	134	3.00E-23	92
3	A105_10754T0	Z519_00100T0	53.52	398	111	5	419	742	7	404	6.00E-125	385
4	A105_13466T0	Z519_12576T0	53.53	241	103	1	5	245	6	237	9.00E-93	278
1	A105_03882T0	Z519_12353T0	53.63	757	318	12	24	750	32	785	0	735
1	A105_13335T0	Z519_09334T0	53.64	151	42	4	117	240	8	157	2.00E-38	136
13	A105_00789T0	Z519_08604T0	53.69	678	301	2	8	685	10	674	0	768
69	A105_06198T0	Z519_04675T0	53.73	255	114	2	1	255	30	280	6.00E-97	288
124	A105_04327T0	Z519_06914T0	53.78	489	224	1	4	492	53	539	0	577
2	A105_06781T0	Z519_09388T0	53.85	78	36	0	1	78	289	366	2.00E-23	92
33	A105_05009T0	Z519_12503T0	54	150	69	0	13	162	303	452	8.00E-51	171
10	A105_07436T0	Z519_01325T0	54.01	424	194	1	1	423	1	424	6.00E-155	448
11	A105_06512T0	Z519_12703T0	54.05	370	150	2	1	352	1	368	8.00E-139	403
1	A105_03811T0	Z519_11138T0	54.1	61	24	1	39	95	320	380	2.00E-14	67
30	A105_06188T0	Z519_06190T0	54.13	351	158	2	21	371	1	348	9.00E-133	387
8	A105_05005T0	Z519_10731T0	54.24	59	27	0	5	63	118	176	1.00E-19	79
4	A105_06328T0	Z519_08101T0	54.24	59	27	0	12	70	85	143	1.00E-17	74.7
30	A105_13458T0	Z519_02490T0	54.26	94	42	1	1	93	364	457	1.00E-26	101
42	A105_13414T0	Z519_12418T0	54.31	232	105	1	6	236	4	235	2.00E-91	281
11	A105_13248T0	Z519_09253T0	54.32	162	74	0	1	162	185	346	5.00E-55	183
5	A105_11811T0	Z519_08608T0	54.36	149	68	0	1	149	1	149	3.00E-52	166
18	A105_10943T0	Z519_10731T0	54.41	68	31	0	58	125	117	184	4.00E-22	87.8
1	A105_03918T0	Z519_02242T0	54.43	158	70	1	8	165	215	370	2.00E-51	170
2	A105_04225T0	Z519_03505T0	54.43	158	28	4	2	143	1	130	6.00E-43	145
63	A105_09597T0	Z519_11013T0	54.48	558	239	5	1	556	1	545	0	653
3	A105_12682T0	Z519_12712T0	54.51	466	212	0	2	467	20	485	1.00E-170	492
29	A105_10939T0	Z519_12210T0	54.52	818	347	8	1	795	131	946	0	886
6	A105_10384T0	Z519_10983T0	54.53	541	199	7	6	515	7	531	0	581
112	A105_11010T0	Z519_09251T0	54.53	574	198	3	1	531	1	554	0	611
12	A105_04334T0	Z519_08604T0	54.61	683	296	3	8	684	10	684	0	782
3	A105_05641T0	Z519_10239T0	54.62	119	44	1	1	109	346	464	2.00E-33	120
88	A105_12738T0	Z519_10798T0	54.62	357	54	6	24	374	200	454	2.00E-93	294
102	A105_04039T0	Z519_04661T0	54.66	569	248	4	1	567	1	561	0	664
2	A105_05505T0	Z519_05809T0	54.69	64	29	0	2	65	202	265	1.00E-17	75.9

30	A105_11306T0	Z519_02801T0	54.71	594	261	4	17	608	17	604	0	686
10	A105_04044T0	Z519_04081T0	54.79	146	64	1	10	153	387	532	6.00E-50	169
16	A105_01135T0	Z519_00985T0	54.81	104	47	0	10	113	12	115	3.00E-37	134
4	A105_11009T0	Z519_04342T0	54.84	93	32	2	1	83	369	461	5.00E-19	82.8
96	A105_09535T0	Z519_09500T0	54.86	545	243	3	21	563	23	566	0	650
3	A105_12594T0	Z519_10922T0	55.09	265	115	2	52	313	365	628	5.00E-89	287
5	A105_03114T0	Z519_02306T0	55.1	98	44	0	92	189	19	116	4.00E-27	109
170	A105_09503T0	Z519_00949T0	55.12	488	209	3	7	492	11	490	0	539
23	A105_00641T0	Z519_10272T0	55.16	310	138	1	10	319	14	322	1.00E-131	381
1	A105_00366T0	Z519_00365T0	55.17	87	25	2	1	87	89	161	6.00E-18	74.7
158	A105_02057T0	Z519_09996T0	55.22	498	219	3	7	504	9	502	0	554
24	A105_08550T0	Z519_00955T0	55.23	449	189	5	57	505	3	439	1.00E-170	497
74	A105_11726T0	Z519_06579T0	55.26	304	121	4	1	289	3	306	5.00E-109	322
1	A105_06502T0	Z519_06671T0	55.31	273	113	5	14	285	68	332	5.00E-84	259
2	A105_12899T0	Z519_04161T0	55.32	47	21	0	1	47	112	158	9.00E-12	59.7
117	A105_05195T0	Z519_12529T0	55.43	451	201	0	17	467	8	458	0	544
4	A105_10587T0	Z519_10862T0	55.43	175	73	2	455	628	297	467	3.00E-53	190
1	A105_04338T0	Z519_08672T0	55.49	337	144	4	8	340	6	340	3.00E-137	397
3	A105_13334T0	Z519_12807T0	55.5	209	53	2	60	268	46	214	2.00E-64	203
145	A105_02948T0	Z519_12269T0	55.51	508	212	3	26	527	34	533	0	587
54	A105_00904T0	Z519_02870T0	55.56	90	40	0	5	94	7	96	6.00E-29	105
4	A105_01716T0	Z519_10822T0	55.56	297	129	3	13	308	18	312	2.00E-112	331
4	A105_02929T0	Z519_09789T0	55.56	81	36	0	15	95	504	584	4.00E-26	102
96	A105_12306T0	Z519_07065T0	55.58	529	210	5	8	512	9	536	0	597
31	A105_08928T0	Z519_08613T0	55.61	588	236	3	1	588	1	563	0	676
8	A105_05626T0	Z519_09314T0	55.7	79	35	0	1	79	145	223	1.00E-28	107
2	A105_03154T0	Z519_10006T0	55.74	122	22	3	31	145	80	176	8.00E-29	108
30	A105_11578T0	Z519_02801T0	55.8	595	254	6	13	603	18	607	0	696
4	A105_05665T0	Z519_11183T0	55.91	93	9	1	1	61	65	157	2.00E-24	92.4
8	A105_08228T0	Z519_01063T0	55.91	279	108	3	1	264	215	493	1.00E-104	316
7	A105_00966T0	Z519_03883T0	56.07	214	53	7	1	177	83	292	3.00E-61	194
2	A105_03320T0	Z519_12812T0	56.12	294	102	5	1	284	1	277	1.00E-110	324
138	A105_01096T0	Z519_03911T0	56.17	470	202	2	1	466	40	509	0	525
116	A105_04987T0	Z519_12207T0	56.23	281	68	9	963	1231	1	238	2.00E-82	270
4	A105_02050T0	Z519_05747T0	56.32	364	156	2	1	362	1	363	4.00E-153	440

6	A105_13385T0	Z519_10983T0	56.34	607	251	5	6	607	7	604	0	710
9	A105_10383T0	Z519_12229T0	56.39	133	53	2	260	388	37	168	4.00E-37	135
2	A105_10761T0	Z519_09951T0	56.44	365	77	10	1	283	1	365	2.00E-102	306
41	A105_00640T0	Z519_02306T0	56.46	480	208	1	1	480	1	479	0	579
157	A105_08368T0	Z519_05185T0	56.51	476	192	6	33	502	38	504	0	545
61	A105_02053T0	Z519_10221T0	56.53	536	228	3	11	545	12	543	0	633
77	A105_13383T0	Z519_05855T0	56.56	320	138	1	7	326	10	328	5.00E-130	377
12	A105_01766T0	Z519_08609T0	56.59	182	73	2	8	189	12	187	2.00E-70	214
103	A105_02058T0	Z519_05635T0	56.63	558	242	0	17	574	12	569	0	696
1	A105_03306T0	Z519_02242T0	56.64	143	61	1	8	150	228	369	7.00E-49	163
15	A105_08551T0	Z519_00957T0	56.67	120	47	1	13	132	182	296	3.00E-40	143
1	A105_12214T0	Z519_03259T0	56.7	351	151	1	5	354	3	353	6.00E-138	399
10	A105_00910T0	Z519_00001T0	56.71	566	233	4	5	558	10	575	0	688
1	A105_08827T0	Z519_03827T0	56.71	231	86	4	11	234	1	224	3.00E-63	199
15	A105_09398T0	Z519_06951T0	56.72	305	131	1	6	310	3	306	3.00E-126	367
1	A105_06795T0	Z519_06708T0	56.88	109	40	2	502	605	5	111	6.00E-30	114
14	A105_07342T0	Z519_11001T0	56.91	246	97	2	1	238	1	245	1.00E-92	297
24	A105_12514T0	Z519_07538T0	57.02	121	52	0	5	125	276	396	9.00E-44	152
15	A105_00881T0	Z519_10959T0	57.05	319	136	1	1	318	1	319	2.00E-135	390
68	A105_04033T0	Z519_12759T0	57.14	343	145	2	1	343	1	341	6.00E-148	424
16	A105_07588T0	Z519_09161T0	57.14	84	36	0	1	84	315	398	7.00E-28	105
10	A105_11704T0	Z519_06348T0	57.14	49	20	1	82	130	109	156	2.00E-10	56.2
1	A105_12146T0	Z519_09258T0	57.14	168	47	2	61	227	192	335	2.00E-55	182
1	A105_07312T0	Z519_05887T0	57.23	159	37	3	6	164	267	394	4.00E-53	176
173	A105_06784T0	Z519_05634T0	57.24	297	94	1	35	298	4	300	3.00E-113	332
77	A105_06213T0	Z519_02161T0	57.25	131	56	0	10	140	277	407	8.00E-49	165
8	A105_02229T0	Z519_11746T0	57.3	459	108	7	91	466	66	519	2.00E-152	447
11	A105_12330T0	Z519_01508T0	57.33	75	31	1	48	121	195	269	1.00E-22	91.3
2	A105_03251T0	Z519_05805T0	57.35	204	83	2	1	200	13	216	5.00E-75	228
15	A105_00978T0	Z519_06951T0	57.37	319	134	2	4	322	3	319	6.00E-133	384
11	A105_08979T0	Z519_08771T0	57.43	303	74	6	9	276	4	286	3.00E-107	315
14	A105_13251T0	Z519_01039T0	57.52	153	62	1	19	168	202	354	3.00E-54	177
2	A105_05977T0	Z519_11584T0	57.6	125	53	0	3	127	4	128	4.00E-50	160
21	A105_01345T0	Z519_06608T0	57.61	276	110	2	14	282	11	286	8.00E-112	327
6	A105_01350T0	Z519_11921T0	57.66	111	40	3	24	127	22	132	2.00E-27	106

3	A105_05617T0	Z519_04907T0	57.73	563	225	3	1	550	39	601	0	623
117	A105_02203T0	Z519_06914T0	57.75	542	226	2	1	541	1	540	0	673
51	A105_01767T0	Z519_08603T0	57.78	450	189	1	6	455	12	460	0	577
30	A105_04335T0	Z519_09187T0	57.79	507	209	2	1	507	120	621	0	615
39	A105_06190T0	Z519_00865T0	57.86	280	117	1	20	298	43	322	3.00E-102	305
37	A105_08105T0	Z519_09187T0	57.88	603	253	1	11	613	20	621	0	746
8	A105_08647T0	Z519_04010T0	58.08	365	99	7	1	363	1	313	5.00E-126	372
5	A105_04333T0	Z519_08608T0	58.11	148	59	2	23	167	2	149	8.00E-54	170
92	A105_00812T0	Z519_02949T0	58.12	191	57	2	1	168	43	233	1.00E-65	211
3	A105_01600T0	Z519_03281T0	58.18	110	46	0	1	110	49	158	3.00E-46	149
5	A105_10999T0	Z519_10690T0	58.19	586	225	8	1	568	1	584	0	639
12	A105_09532T0	Z519_09497T0	58.32	571	226	3	3	562	13	582	0	713
33	A105_06631T0	Z519_04653T0	58.33	60	24	1	4	63	280	338	2.00E-16	72
36	A105_02066T0	Z519_00865T0	58.44	308	126	2	4	309	28	335	3.00E-117	344
3	A105_13366T0	Z519_08391T0	58.46	390	160	2	1	388	1	390	9.00E-164	468
14	A105_00209T0	Z519_00211T0	58.55	152	24	2	21	148	1	137	2.00E-46	162
8	A105_04045T0	Z519_00727T0	58.6	401	163	1	3	403	6	403	0	540
71	A105_12767T0	Z519_10826T0	58.61	389	78	7	118	506	2	307	5.00E-138	405
4	A105_00813T0	Z519_02949T0	58.62	58	22	1	1	58	248	303	2.00E-17	75.1
20	A105_12961T0	Z519_07069T0	58.64	324	79	3	1	270	1	323	1.00E-119	348
1	A105_00824T0	Z519_00770T0	58.74	206	65	2	186	391	6	191	2.00E-65	226
13	A105_02927T0	Z519_05484T0	58.8	250	103	0	1	250	1224	1473	2.00E-97	314
31	A105_05199T0	Z519_00647T0	58.81	386	154	3	1	383	1	384	9.00E-165	470
1	A105_12106T0	Z519_12367T0	58.82	68	0	1	35	74	1	68	4.00E-17	69.7
9	A105_13417T0	Z519_11627T0	58.82	51	21	0	7	57	133	183	1.00E-14	64.3
18	A105_04350T0	Z519_08203T0	58.84	362	145	2	1	361	1	359	5.00E-156	446
108	A105_01991T0	Z519_01468T0	58.99	795	186	9	127	905	847	1517	0	835
22	A105_06276T0	Z519_12648T0	58.99	356	133	7	7	352	11	363	6.00E-147	422
32	A105_09609T0	Z519_07264T0	59	339	139	0	1	339	1	339	1.00E-139	402
21	A105_13367T0	Z519_09124T0	59.1	401	159	3	6	405	8	404	0	520
38	A105_12296T0	Z519_12783T0	59.14	509	200	6	74	580	1	503	0	617
64	A105_06197T0	Z519_07227T0	59.17	556	222	3	1	554	2	554	0	700
33	A105_00916T0	Z519_05854T0	59.18	463	178	5	1	457	1	458	0	568
2	A105_02154T0	Z519_11046T0	59.18	49	19	1	90	137	1101	1149	1.00E-12	65.1
19	A105_11304T0	Z519_10200T0	59.22	282	114	1	6	287	5	285	1.00E-118	345

158	A105_06088T0	Z519_05185T0	59.28	474	168	2	33	487	38	505	0	580
19	A105_08548T0	Z519_00952T0	59.29	280	114	0	3	282	2	281	3.00E-127	367
9	A105_10336T0	Z519_11003T0	59.33	268	62	3	153	416	1	225	1.00E-104	312
4	A105_11257T0	Z519_02421T0	59.48	306	105	4	15	301	7	312	3.00E-122	356
75	A105_13380T0	Z519_01346T0	59.56	544	208	4	9	547	80	616	0	682
47	A105_09187T0	Z519_05299T0	59.64	280	55	2	276	555	1	222	4.00E-98	300
1	A105_06329T0	Z519_09298T0	59.68	62	23	2	22	83	1	60	2.00E-15	68.2
165	A105_09501T0	Z519_07092T0	59.69	511	201	3	9	518	7	513	0	629
1	A105_12182T0	Z519_04856T0	59.75	405	128	4	1	404	251	621	4.00E-155	455
1	A105_06712T0	Z519_04907T0	60	120	48	0	11	130	482	601	7.00E-46	157
2	A105_12439T0	Z519_12011T0	60	40	16	0	65	104	400	439	4.00E-08	50.1
86	A105_10856T0	Z519_05040T0	60.04	488	162	1	37	491	37	524	0	611
64	A105_05196T0	Z519_01858T0	60.17	575	225	3	1	575	1	571	0	734
6	A105_01554T0	Z519_01867T0	60.34	406	63	5	290	695	1	308	8.00E-145	432
13	A105_04640T0	Z519_09496T0	60.43	139	52	1	2	137	3	141	7.00E-61	186
1	A105_12831T0	Z519_07434T0	60.47	129	26	2	1	129	1	104	3.00E-38	133
122	A105_13413T0	Z519_12418T0	60.47	258	101	1	1	258	270	526	6.00E-117	348
2	A105_01924T0	Z519_01536T0	60.5	362	81	7	1	362	1	300	8.00E-133	385
117	A105_00802T0	Z519_09841T0	60.53	494	177	4	6	499	46	521	0	623
1	A105_07477T0	Z519_11753T0	60.56	251	85	3	1	238	223	472	7.00E-98	296
12	A105_11809T0	Z519_08604T0	60.62	678	265	1	7	684	9	684	0	861
6	A105_00330T0	Z519_09661T0	60.67	445	171	3	1	442	1	444	0	573
8	A105_12437T0	Z519_06176T0	60.73	578	226	1	1	577	1	578	0	738
1	A105_04120T0	Z519_03398T0	60.75	107	17	1	136	217	1	107	2.00E-37	130
13	A105_00635T0	Z519_08977T0	60.8	426	160	4	5	424	4	428	0	541
15	A105_11422T0	Z519_09313T0	61	241	94	0	1	241	1	241	6.00E-107	318
12	A105_05628T0	Z519_08682T0	61.05	190	35	1	1	151	1	190	5.00E-77	230
3	A105_06988T0	Z519_06511T0	61.08	203	16	2	118	281	3	181	3.00E-63	199
2	A105_09383T0	Z519_01185T0	61.09	496	72	4	111	552	75	503	4.00E-176	519
3	A105_08357T0	Z519_09571T0	61.11	198	35	2	1	198	1	156	2.00E-69	217
15	A105_01724T0	Z519_05594T0	61.2	317	96	2	1	290	1	317	7.00E-131	377
8	A105_06417T0	Z519_10624T0	61.22	98	11	1	1	98	1	71	2.00E-27	99.4
26	A105_06074T0	Z519_04668T0	61.3	230	83	2	55	280	1	228	2.00E-80	247
4	A105_10376T0	Z519_10985T0	61.34	194	75	0	1	194	61	254	8.00E-79	241
2	A105_04287T0	Z519_03566T0	61.35	445	110	5	68	495	71	470	3.00E-157	466

28	A105_06059T0	Z519_03622T0	61.45	345	131	2	1	345	1	343	1.00E-157	449
20	A105_00915T0	Z519_09124T0	61.54	403	150	3	1	402	5	403	0	542
1	A105_05487T0	Z519_08359T0	61.54	52	19	1	245	296	1	51	9.00E-11	58.5
99	A105_06333T0	Z519_11198T0	61.54	546	210	0	41	586	24	569	0	739
97	A105_00639T0	Z519_04822T0	61.63	563	214	1	34	596	37	597	0	768
4	A105_08556T0	Z519_00956T0	61.64	73	28	0	60	132	68	140	6.00E-26	102
6	A105_06176T0	Z519_07514T0	61.7	342	130	1	310	650	260	601	8.00E-145	478
135	A105_11420T0	Z519_09799T0	61.78	259	90	2	1	252	1	257	8.00E-111	323
47	A105_12959T0	Z519_01348T0	61.82	330	101	6	2	309	108	434	5.00E-142	412
22	A105_02201T0	Z519_09124T0	61.84	435	151	4	3	423	6	439	0	579
4	A105_10568T0	Z519_12576T0	61.86	236	50	4	1	209	1	223	1.00E-90	269
13	A105_02951T0	Z519_07555T0	61.94	599	227	1	5	603	6	603	0	762
3	A105_13422T0	Z519_12318T0	61.96	92	35	0	1	92	37	128	4.00E-35	126
3	A105_05337T0	Z519_08210T0	61.97	71	5	1	1	71	277	325	2.00E-20	81.6
1	A105_06592T0	Z519_09072T0	61.98	242	22	3	1	183	1	231	2.00E-83	254
8	A105_06273T0	Z519_05119T0	62.04	274	78	5	5	254	33	304	3.00E-112	328
1	A105_08395T0	Z519_05647T0	62.14	103	22	1	1	103	143	228	2.00E-12	63.9
18	A105_06216T0	Z519_00683T0	62.16	74	28	0	14	87	291	364	8.00E-25	97.1
4	A105_13145T0	Z519_04378T0	62.17	378	95	6	123	482	64	411	1.00E-132	416
99	A105_02052T0	Z519_07111T0	62.2	545	205	1	4	547	33	577	0	700
2	A105_11085T0	Z519_06884T0	62.35	85	12	1	20	104	372	436	9.00E-26	100
15	A105_11537T0	Z519_09940T0	62.5	200	57	1	7	188	7	206	5.00E-86	258
1	A105_12569T0	Z519_05474T0	62.55	235	77	4	44	278	1	224	1.00E-80	245
1	A105_01342T0	Z519_03201T0	62.57	521	186	5	1	517	1	516	0	686
88	A105_10589T0	Z519_01967T0	62.58	473	149	1	26	498	37	481	0	630
1	A105_08871T0	Z519_03782T0	62.64	174	26	5	1	156	91	243	7.00E-50	162
2	A105_12293T0	Z519_04461T0	62.65	257	59	5	107	338	14	258	2.00E-80	257
14	A105_08697T0	Z519_03961T0	62.71	303	72	7	20	317	103	369	1.00E-109	331
1	A105_13451T0	Z519_04141T0	62.75	51	19	0	402	452	10	60	2.00E-12	63.2
31	A105_06195T0	Z519_08630T0	62.85	323	119	1	1	322	1	323	2.00E-138	398
1	A105_03518T0	Z519_12443T0	63.08	65	24	0	18	82	31	95	1.00E-26	95.9
88	A105_01580T0	Z519_07633T0	63.2	394	145	0	8	401	14	407	0	525
9	A105_08696T0	Z519_03963T0	63.23	310	82	7	118	412	48	340	7.00E-109	331
60	A105_12905T0	Z519_05855T0	63.32	319	116	1	8	326	11	328	2.00E-150	430
30	A105_10375T0	Z519_05854T0	63.39	336	94	7	11	324	46	374	3.00E-136	398

18	A105_09393T0	Z519_10959T0	63.44	320	113	2	1	317	1	319	4.00E-153	435
2	A105_01778T0	Z519_01687T0	63.48	282	41	3	1	281	1	221	4.00E-114	333
88	A105_12966T0	Z519_05040T0	63.51	507	180	2	6	512	21	522	0	672
1	A105_00825T0	Z519_00771T0	63.55	107	23	2	4	110	123	213	2.00E-37	130
82	A105_12641T0	Z519_09116T0	63.77	552	189	4	5	548	4	552	0	692
162	A105_09616T0	Z519_01924T0	63.81	536	181	6	22	557	6	528	0	689
59	A105_02067T0	Z519_09933T0	63.83	564	203	1	1	563	1	564	0	751
8	A105_11235T0	Z519_08845T0	63.91	133	36	4	141	267	2	128	3.00E-43	145
1	A105_08229T0	Z519_01063T0	63.96	111	40	0	2	112	14	124	7.00E-44	150
1	A105_10755T0	Z519_09943T0	63.98	161	18	1	1	121	1	161	3.00E-59	190
1	A105_03552T0	Z519_09675T0	64	75	12	1	2	76	75	134	7.00E-21	84.3
175	A105_01722T0	Z519_06036T0	64.06	256	87	4	1	252	1	255	5.00E-109	318
5	A105_06844T0	Z519_06657T0	64.09	220	48	1	1	220	1	189	1.00E-90	274
4	A105_08356T0	Z519_02675T0	64.09	181	64	1	1	181	58	237	1.00E-86	258
2	A105_11255T0	Z519_12069T0	64.11	209	69	3	2	204	147	355	2.00E-88	266
118	A105_13418T0	Z519_09188T0	64.13	538	188	2	14	546	14	551	0	749
1	A105_11516T0	Z519_08794T0	64.25	221	29	3	67	287	1	171	7.00E-67	211
1	A105_05161T0	Z519_08050T0	64.3	479	60	5	200	678	1	368	0	581
4	A105_05376T0	Z519_08250T0	64.36	101	35	1	10	110	2	101	6.00E-36	126
7	A105_09435T0	Z519_01151T0	64.4	382	92	6	464	839	134	477	3.00E-148	449
1	A105_02952T0	Z519_02958T0	64.44	329	113	2	19	345	216	542	5.00E-146	436
16	A105_12709T0	Z519_00913T0	64.44	315	112	0	7	321	6	320	3.00E-160	454
3	A105_03658T0	Z519_06380T0	64.49	107	38	0	1	107	1	107	4.00E-44	147
7	A105_09394T0	Z519_09097T0	64.49	352	120	2	1	351	1	348	7.00E-167	473
130	A105_12436T0	Z519_05418T0	64.63	492	174	0	22	513	21	512	0	681
14	A105_02152T0	Z519_05600T0	64.66	116	41	0	1	116	238	353	2.00E-52	170
9	A105_09154T0	Z519_09292T0	64.71	51	18	0	1	51	1	51	2.00E-18	77.8
74	A105_09176T0	Z519_02446T0	64.74	173	61	0	22	194	698	870	1.00E-63	212
14	A105_13419T0	Z519_09186T0	64.75	244	86	0	1	244	541	784	6.00E-102	318
76	A105_01761T0	Z519_08667T0	64.78	423	117	7	83	493	2	404	0	563
311	A105_06187T0	Z519_07727T0	64.78	900	309	5	3	900	4	897	0	1187
1	A105_04912T0	Z519_02739T0	64.81	54	18	1	14	67	31	83	6.00E-14	63.5
59	A105_05627T0	Z519_08668T0	64.9	302	106	0	1	302	1	302	3.00E-146	417
42	A105_10435T0	Z519_01726T0	64.92	593	203	2	38	625	69	661	0	792
13	A105_05635T0	Z519_09497T0	65.04	575	190	2	3	566	13	587	0	795

9	A105_08557T0	Z519_00956T0	65.29	170	59	0	2	171	499	668	1.00E-69	229
1	A105_12199T0	Z519_04552T0	65.35	101	9	1	1	75	225	325	3.00E-35	126
3	A105_12417T0	Z519_06260T0	65.41	133	23	1	1	110	49	181	4.00E-51	169
8	A105_04550T0	Z519_02378T0	65.42	480	63	5	106	585	1	377	0	588
8	A105_00645T0	Z519_00785T0	65.43	350	115	4	4	350	8	354	5.00E-163	463
1	A105_03742T0	Z519_03063T0	65.49	113	32	1	111	216	72	184	1.00E-38	135
2	A105_06490T0	Z519_09174T0	65.54	386	72	8	1	325	35	420	2.00E-161	466
1	A105_00613T0	Z519_12390T0	65.56	90	31	0	1	90	408	497	3.00E-37	134
2	A105_11154T0	Z519_08923T0	65.76	257	33	6	1	244	1	215	3.00E-102	298
1	A105_07426T0	Z519_05998T0	65.77	111	24	1	36	132	81	191	5.00E-39	133
18	A105_09975T0	Z519_02977T0	65.85	82	28	0	1	82	1	82	1.00E-33	114
1	A105_09493T0	Z519_01090T0	65.89	214	31	2	40	253	23	194	6.00E-88	262
1	A105_12314T0	Z519_12400T0	65.91	220	74	1	143	361	17	236	2.00E-59	197
1	A105_09525T0	Z519_01062T0	65.97	144	26	2	58	178	32	175	2.00E-55	179
1	A105_09087T0	Z519_05198T0	66.02	309	75	1	1	279	1	309	9.00E-104	308
1	A105_07748T0	Z519_07562T0	66.06	109	37	0	1	109	1	109	5.00E-49	154
12	A105_00779T0	Z519_08609T0	66.14	189	64	0	1	189	1	189	4.00E-91	268
34	A105_12766T0	Z519_10825T0	66.18	1638	543	7	2	1635	20	1650	0	2211
12	A105_04331T0	Z519_08682T0	66.29	178	59	1	11	187	10	187	4.00E-84	251
18	A105_00216T0	Z519_00215T0	66.36	428	85	8	9	429	1	376	2.00E-163	470
2	A105_05135T0	Z519_08026T0	66.36	883	145	13	186	983	19	834	0	999
45	A105_00638T0	Z519_08967T0	66.48	355	116	2	1	352	1	355	2.00E-173	490
157	A105_10442T0	Z519_00683T0	66.59	449	132	2	1	431	65	513	0	592
1	A105_12792T0	Z519_12795T0	66.67	66	22	0	151	216	1	66	3.00E-23	90.5
3	A105_06369T0	Z519_10671T0	66.8	259	62	2	64	300	50	306	2.00E-114	338
156	A105_01720T0	Z519_06933T0	66.86	528	170	2	1	526	1	525	0	754
11	A105_11846T0	Z519_01952T0	66.98	106	30	1	76	181	73	173	2.00E-40	137
15	A105_06189T0	Z519_03713T0	67.06	428	140	1	9	436	9	435	0	621
96	A105_13250T0	Z519_01271T0	67.1	231	74	1	102	330	20	250	5.00E-110	323
1	A105_13046T0	Z519_06170T0	67.11	76	24	1	3	78	97	171	1.00E-27	102
1	A105_10148T0	Z519_04299T0	67.27	278	62	5	1	277	1	250	1.00E-124	358
26	A105_00907T0	Z519_11776T0	67.28	654	202	3	1	654	1	642	0	895
1	A105_02504T0	Z519_07038T0	67.51	197	27	3	1	190	1	167	2.00E-75	227
12	A105_11813T0	Z519_08682T0	67.57	185	58	1	4	188	9	191	2.00E-93	273
3	A105_05506T0	Z519_04645T0	67.71	96	30	1	44	139	176	270	9.00E-39	135

2	A105_11611T0	Z519_08685T0	67.76	456	81	4	227	656	31	446	0	569
1	A105_04882T0	Z519_02706T0	67.84	199	50	1	3	187	96	294	2.00E-83	256
98	A105_09397T0	Z519_00912T0	67.94	574	184	0	7	580	10	583	0	858
101	A105_06331T0	Z519_11809T0	68	575	167	2	1	558	1	575	0	825
2	A105_06898T0	Z519_12257T0	68	75	24	0	1	75	433	507	5.00E-32	115
5	A105_13337T0	Z519_09332T0	68.05	266	40	2	1	251	2	237	2.00E-118	342
1	A105_02869T0	Z519_07402T0	68.22	214	59	2	50	258	71	280	5.00E-58	188
3	A105_05792T0	Z519_05919T0	68.22	516	160	3	1	516	1	512	0	708
44	A105_12912T0	Z519_03891T0	68.22	258	82	0	16	273	6	263	8.00E-123	355
2	A105_04352T0	Z519_02724T0	68.29	41	11	1	86	126	188	226	6.00E-09	55.1
1	A105_09905T0	Z519_10313T0	68.29	123	17	1	1	123	367	467	3.00E-49	165
4	A105_05978T0	Z519_11583T0	68.31	527	156	5	1	521	1	522	0	717
102	A105_06786T0	Z519_05635T0	68.33	562	164	3	2	550	9	569	0	825
9	A105_12173T0	Z519_10654T0	68.35	79	23	1	3	79	221	299	4.00E-27	104
29	A105_07553T0	Z519_06116T0	68.39	193	24	4	1	192	114	270	1.00E-78	238
7	A105_08037T0	Z519_07873T0	68.44	244	44	4	44	283	17	231	7.00E-105	310
31	A105_02151T0	Z519_05600T0	68.52	216	67	1	1	216	1	215	5.00E-107	315
1	A105_12640T0	Z519_05397T0	68.57	70	22	0	16	85	3	72	2.00E-28	100
2	A105_13099T0	Z519_12390T0	68.57	70	22	0	98	167	1	70	1.00E-26	106
75	A105_06822T0	Z519_06679T0	68.64	220	28	3	1	203	1	196	4.00E-90	277
1	A105_04604T0	Z519_02432T0	68.66	552	80	6	1	551	1	460	0	674
1	A105_02513T0	Z519_07047T0	68.75	192	56	1	1	188	1	192	2.00E-31	117
18	A105_12960T0	Z519_01348T0	68.75	80	25	0	3	82	2	81	2.00E-32	116
46	A105_05629T0	Z519_08681T0	68.79	346	62	2	51	350	119	464	8.00E-165	472
8	A105_06023T0	Z519_02052T0	68.89	389	110	4	1	379	1	388	0	545
100	A105_12335T0	Z519_00227T0	68.91	534	165	1	10	543	2	534	0	787
1	A105_05149T0	Z519_08039T0	69	100	8	1	1	100	1	77	1.00E-40	133
29	A105_12365T0	Z519_12449T0	69	300	73	4	468	759	11	298	4.00E-118	362
1	A105_12430T0	Z519_06246T0	69	200	38	2	1	200	1	176	7.00E-78	233
12	A105_08104T0	Z519_11627T0	69.02	184	57	0	1	184	3	186	7.00E-92	269
30	A105_11475T0	Z519_08756T0	69.04	239	61	2	1	236	1	229	1.00E-106	312
2	A105_05738T0	Z519_11111T0	69.09	317	47	3	1	317	1	266	2.00E-143	409
160	A105_02059T0	Z519_08597T0	69.12	285	88	0	1	285	1	285	7.00E-141	402
98	A105_04025T0	Z519_06820T0	69.14	538	159	4	1	531	1	538	0	789
16	A105_00942T0	Z519_12237T0	69.17	412	114	3	8	412	4	409	0	591

9	A105_06852T0	Z519_06651T0	69.18	438	92	5	1	402	1	431	0	550
2	A105_00281T0	Z519_00290T0	69.19	172	27	1	92	263	1	146	2.00E-74	229
1	A105_01057T0	Z519_04898T0	69.23	91	28	0	1	91	252	342	2.00E-40	141
3	A105_12100T0	Z519_12361T0	69.35	323	82	2	417	739	1	306	4.00E-148	438
2	A105_12794T0	Z519_11777T0	69.35	62	19	0	1	62	6	67	2.00E-24	94.4
83	A105_09924T0	Z519_06737T0	69.36	408	50	4	126	511	1	355	0	523
47	A105_10974T0	Z519_11508T0	69.39	147	44	1	174	320	181	326	2.00E-57	190
2	A105_08267T0	Z519_09489T0	69.42	497	72	8	1	497	55	471	0	625
1	A105_07481T0	Z519_06047T0	69.44	301	51	7	1	272	22	310	2.00E-92	278
10	A105_01340T0	Z519_07617T0	69.45	311	95	0	2	312	3	313	4.00E-154	439
1	A105_08181T0	Z519_09404T0	69.5	318	63	5	204	491	1	314	2.00E-126	379
3	A105_05185T0	Z519_08074T0	69.53	128	30	1	102	229	1	119	9.00E-55	174
2	A105_08970T0	Z519_00586T0	69.59	217	65	1	43	258	3	219	6.00E-108	315
2	A105_08013T0	Z519_07850T0	69.6	273	31	1	2	274	3	223	2.00E-109	331
12	A105_00805T0	Z519_08609T0	69.63	191	58	0	1	191	1	191	4.00E-100	290
3	A105_05543T0	Z519_03661T0	69.66	89	12	1	242	315	2	90	3.00E-33	121
4	A105_09298T0	Z519_03219T0	69.66	89	27	0	1	89	270	358	8.00E-38	130
6	A105_06203T0	Z519_08021T0	69.67	455	133	4	10	460	7	460	0	658
13	A105_04336T0	Z519_09187T0	69.7	99	30	0	6	104	21	119	5.00E-43	148
1	A105_12228T0	Z519_04525T0	69.8	202	20	1	1	202	1	161	1.00E-61	191
1	A105_10416T0	Z519_11292T0	69.83	179	32	2	1	179	1	157	8.00E-61	192
1	A105_00617T0	Z519_00627T0	70	140	28	4	51	184	17	148	6.00E-56	178
1	A105_00826T0	Z519_00772T0	70	70	21	0	1	70	137	206	5.00E-28	103
1	A105_06873T0	Z519_06627T0	70.02	527	103	3	1	527	94	565	0	669
2	A105_10055T0	Z519_09955T0	70.09	107	32	0	5	111	50	156	2.00E-45	156
15	A105_04036T0	Z519_04431T0	70.14	345	100	3	1	342	1	345	3.00E-179	503
3	A105_00217T0	Z519_00216T0	70.45	88	12	1	1	88	1	74	9.00E-35	118
1	A105_13053T0	Z519_12117T0	70.52	173	43	1	1	173	1	165	8.00E-69	215
28	A105_10401T0	Z519_11279T0	70.59	187	23	2	4	158	33	219	3.00E-83	256
103	A105_11414T0	Z519_02045T0	70.59	238	55	2	227	449	1	238	2.00E-107	322
1	A105_10544T0	Z519_12599T0	70.62	177	9	4	1	176	1	135	2.00E-70	212
1	A105_07590T0	Z519_06153T0	70.65	92	27	0	87	178	4	95	5.00E-40	134
2	A105_13370T0	Z519_10985T0	70.71	99	29	0	6	104	49	147	1.00E-42	144
11	A105_10614T0	Z519_11103T0	70.77	195	56	1	1	194	11	205	2.00E-87	264
7	A105_11471T0	Z519_07555T0	70.83	72	21	0	1	72	38	109	5.00E-29	112

1	A105_04867T0	Z519_02691T0	70.86	278	41	1	1	278	73	310	2.00E-130	375
1	A105_09872T0	Z519_10345T0	70.87	127	31	2	1	121	189	315	6.00E-54	175
1	A105_02702T0	Z519_07239T0	70.97	31	9	0	3	33	104	134	8.00E-07	42
1	A105_04389T0	Z519_02216T0	70.97	62	18	0	193	254	1	62	6.00E-22	87
16	A105_02065T0	Z519_10337T0	71.01	407	117	1	28	434	39	444	0	565
3	A105_05630T0	Z519_08599T0	71.13	142	41	0	1	142	12	153	9.00E-72	215
3	A105_03655T0	Z519_09783T0	71.24	306	51	5	1	299	1	276	3.00E-144	410
2	A105_11883T0	Z519_05615T0	71.25	80	23	0	1	80	95	174	6.00E-33	113
1	A105_02262T0	Z519_11715T0	71.28	94	22	1	1	94	19	107	5.00E-38	125
23	A105_12904T0	Z519_09124T0	71.32	129	37	0	126	254	257	385	2.00E-60	199
10	A105_09157T0	Z519_05268T0	71.34	321	41	3	283	602	1	271	2.00E-102	314
8	A105_01392T0	Z519_11878T0	71.38	269	77	0	15	283	1	269	2.00E-140	401
1	A105_01044T0	Z519_00967T0	71.43	91	26	0	3	93	6	96	2.00E-34	117
1	A105_06239T0	Z519_10772T0	71.43	105	13	2	1	105	1	88	2.00E-41	142
150	A105_06274T0	Z519_00409T0	71.43	252	72	0	1	252	1	252	4.00E-130	371
1	A105_01128T0	Z519_08401T0	71.61	155	35	1	111	265	1	146	5.00E-69	213
1	A105_09620T0	Z519_10583T0	71.61	472	38	6	1	471	1	377	0	614
3	A105_03296T0	Z519_10144T0	71.62	444	61	5	184	592	24	437	0	607
22	A105_01719T0	Z519_10961T0	71.63	289	82	0	1	289	1	289	7.00E-162	455
9	A105_02159T0	Z519_11046T0	71.64	476	133	2	1	475	1	475	0	703
5	A105_03760T0	Z519_00124T0	71.67	60	17	0	42	101	1	60	5.00E-24	88.6
1	A105_03924T0	Z519_12736T0	71.67	293	83	0	1	293	1	293	2.00E-136	390
1	A105_04985T0	Z519_12206T0	71.67	120	34	0	1	120	1	120	6.00E-52	163
2	A105_02542T0	Z519_07073T0	71.69	332	63	6	1	326	1	307	7.00E-132	381
7	A105_02913T0	Z519_12763T0	71.7	53	15	0	59	111	1	53	3.00E-18	74.7
2	A105_07747T0	Z519_07561T0	71.7	788	205	6	35	807	43	827	0	1064
1	A105_01553T0	Z519_01869T0	71.76	131	36	1	12	142	79	208	1.00E-55	177
2	A105_13289T0	Z519_07114T0	71.84	103	29	0	63	165	343	445	2.00E-50	169
1	A105_05355T0	Z519_08228T0	71.88	64	18	0	73	136	28	91	6.00E-21	89
2	A105_10975T0	Z519_11509T0	71.88	160	11	1	1	160	1	126	1.00E-68	217
2	A105_12267T0	Z519_04487T0	71.88	128	21	2	12	139	451	563	1.00E-52	176
2	A105_04413T0	Z519_02244T0	71.9	395	75	2	39	433	49	407	0	548
1	A105_06141T0	Z519_04596T0	71.99	307	70	4	137	443	1	291	2.00E-146	423
13	A105_01870T0	Z519_01593T0	72.06	247	14	2	1	247	1	192	1.00E-119	342
12	A105_07208T0	Z519_11935T0	72.06	630	95	6	1	578	1	601	0	880

6	A105_11492T0	Z519_08770T0	72.09	86	24	0	23	108	86	171	6.00E-37	124
9	A105_11122T0	Z519_08956T0	72.1	233	33	1	95	327	1	201	4.00E-101	327
45	A105_12829T0	Z519_07433T0	72.28	101	21	1	1	101	1	94	6.00E-41	139
3	A105_12408T0	Z519_06269T0	72.35	358	58	4	1	343	1	332	5.00E-171	482
1	A105_09576T0	Z519_01020T0	72.38	105	25	2	1	105	1	101	2.00E-44	143
44	A105_10104T0	Z519_04253T0	72.4	960	129	10	156	1114	1	825	0	1347
1	A105_00859T0	Z519_00807T0	72.41	203	9	1	1	156	1	203	8.00E-94	273
16	A105_07050T0	Z519_06452T0	72.44	254	41	3	277	504	1	251	4.00E-119	354
16	A105_06191T0	Z519_10337T0	72.46	403	111	0	30	432	42	444	0	577
1	A105_07229T0	Z519_05806T0	72.5	40	11	0	24	63	159	198	2.00E-12	61.6
1	A105_13389T0	Z519_12222T0	72.52	131	36	0	151	281	8	138	3.00E-58	187
2	A105_06076T0	Z519_04667T0	72.57	113	13	1	1	113	205	299	4.00E-45	153
2	A105_09733T0	Z519_10482T0	72.58	124	34	0	287	410	164	287	2.00E-56	192
2	A105_09002T0	Z519_05107T0	72.6	73	17	1	148	220	1	70	4.00E-28	109
11	A105_01445T0	Z519_11823T0	72.73	418	63	3	70	487	1	367	0	527
1	A105_06984T0	Z519_06515T0	72.73	231	63	0	54	284	1523	1753	2.00E-104	342
1	A105_01939T0	Z519_01521T0	72.8	522	73	7	1	522	282	734	0	595
95	A105_12679T0	Z519_12721T0	72.8	353	94	1	1	351	187	539	0	538
1	A105_00276T0	Z519_00285T0	72.97	74	20	0	42	115	21	94	1.00E-28	104
16	A105_12715T0	Z519_04431T0	73.04	345	93	0	1	345	1	345	0	541
43	A105_07412T0	Z519_05984T0	73.06	412	59	5	1	382	95	484	0	540
4	A105_13226T0	Z519_12512T0	73.06	219	31	4	125	342	1	192	8.00E-100	303
4	A105_05824T0	Z519_04908T0	73.07	453	45	5	16	468	1	376	0	628
7	A105_10630T0	Z519_04408T0	73.08	260	49	2	1	239	1	260	3.00E-140	400
1	A105_04540T0	Z519_02367T0	73.14	525	78	4	1	521	12	477	0	697
1	A105_04598T0	Z519_02426T0	73.17	164	15	1	1	164	1	135	8.00E-70	210
2	A105_12615T0	Z519_05426T0	73.22	183	22	1	1	183	1	156	1.00E-90	265
1	A105_06125T0	Z519_12123T0	73.24	71	18	1	10	79	44	114	4.00E-30	107
1	A105_06584T0	Z519_09080T0	73.28	685	153	4	1	679	1	661	0	912
13	A105_01328T0	Z519_08592T0	73.29	483	92	6	1	477	47	498	0	692
78	A105_10894T0	Z519_11433T0	73.29	161	21	2	1	142	1	158	3.00E-76	229
43	A105_07639T0	Z519_06204T0	73.31	341	37	3	8	346	3	291	1.00E-153	449
1	A105_06904T0	Z519_06595T0	73.33	30	8	0	72	101	15	44	2.00E-09	50.8
1	A105_07363T0	Z519_05935T0	73.33	45	11	1	249	293	1	44	4.00E-13	65.1
55	A105_10494T0	Z519_11370T0	73.33	135	36	0	2	136	276	410	3.00E-48	172

28	A105_11012T0	Z519_06807T0	73.33	315	25	4	46	301	1	315	7.00E-154	436
7	A105_11905T0	Z519_11204T0	73.4	94	25	0	1	94	413	506	1.00E-43	148
13	A105_01007T0	Z519_00933T0	73.47	147	26	1	42	188	1	134	1.00E-71	224
2	A105_05436T0	Z519_08313T0	73.47	147	23	1	80	226	1	131	1.00E-61	195
22	A105_10103T0	Z519_04253T0	73.47	524	93	4	294	817	846	1323	0	741
8	A105_07030T0	Z519_06471T0	73.5	117	11	1	1	117	229	325	3.00E-50	165
3	A105_09151T0	Z519_05261T0	73.5	283	33	2	1	242	242	523	4.00E-131	384
3	A105_06209T0	Z519_10790T0	73.53	68	18	0	15	82	25	92	1.00E-18	78.2
1	A105_04066T0	Z519_04902T0	73.68	38	10	0	48	85	240	277	1.00E-12	64.3
12	A105_08698T0	Z519_03960T0	73.68	114	11	1	176	289	1	95	1.00E-47	161
13	A105_08947T0	Z519_05050T0	73.75	80	17	1	31	106	113	192	2.00E-30	109
1	A105_13309T0	Z519_05024T0	73.77	61	16	0	1	61	1	61	1.00E-16	68.2
159	A105_03916T0	Z519_10028T0	73.81	546	141	2	1	545	1	545	0	848
18	A105_09388T0	Z519_01177T0	73.82	191	32	1	137	327	1	173	3.00E-88	266
19	A105_03899T0	Z519_03214T0	73.88	245	26	2	113	357	1	207	2.00E-112	345
2	A105_04284T0	Z519_03563T0	73.94	353	60	3	55	407	1	321	8.00E-178	501
63	A105_07914T0	Z519_07752T0	73.95	403	43	7	140	533	267	616	0	546
1	A105_10616T0	Z519_11101T0	74.03	181	6	2	1	140	1	181	4.00E-79	235
37	A105_13420T0	Z519_09187T0	74.12	622	151	4	7	619	3	623	0	968
1	A105_03047T0	Z519_11990T0	74.15	205	50	1	1	205	1	202	1.00E-99	291
35	A105_05010T0	Z519_12214T0	74.19	124	32	0	1	124	187	310	7.00E-56	181
1	A105_10875T0	Z519_11414T0	74.26	237	23	3	1	214	1	222	2.00E-117	337
15	A105_02156T0	Z519_11045T0	74.32	183	46	1	11	192	11	193	8.00E-104	300
1	A105_12555T0	Z519_05497T0	74.32	183	36	2	1	181	1	174	6.00E-88	274
1	A105_11837T0	Z519_01943T0	74.42	43	11	0	1	43	140	182	1.00E-14	68.2
4	A105_11486T0	Z519_08765T0	74.43	305	18	2	1	269	1	281	9.00E-149	434
1	A105_10022T0	Z519_04147T0	74.44	133	18	2	1	131	1	119	3.00E-62	197
19	A105_06796T0	Z519_06707T0	74.48	533	66	5	1	511	57	541	0	780
6	A105_09668T0	Z519_10538T0	74.51	102	11	1	72	158	371	472	1.00E-43	151
14	A105_02928T0	Z519_12748T0	74.52	157	36	2	45	199	1	155	7.00E-71	226
1	A105_00606T0	Z519_00617T0	74.55	393	23	3	1	391	1	318	0	553
2	A105_02857T0	Z519_07388T0	74.55	55	14	0	228	282	1	55	2.00E-19	81.3
1	A105_03544T0	Z519_09667T0	74.56	169	16	2	171	339	2	143	1.00E-80	244
1	A105_10423T0	Z519_11299T0	74.56	287	32	4	1	253	1	280	1.00E-125	361
2	A105_07107T0	Z519_06393T0	74.59	181	29	1	171	351	58	221	6.00E-89	271

1	A105_08822T0	Z519_03832T0	74.6	248	46	2	50	294	18	251	4.00E-125	360
16	A105_01758T0	Z519_10337T0	74.63	402	102	0	9	410	43	444	0	581
4	A105_09992T0	Z519_04176T0	74.72	443	59	3	1	443	1	390	0	608
1	A105_10180T0	Z519_10846T0	74.77	107	27	0	2	108	36	142	9.00E-51	160
2	A105_11491T0	Z519_08769T0	74.79	119	25	1	45	158	7	125	1.00E-54	174
1	A105_03423T0	Z519_10245T0	74.83	286	34	1	1	286	1	248	7.00E-148	418
7	A105_11594T0	Z519_08700T0	74.94	423	62	3	1	418	1	384	0	590
1	A105_01977T0	Z519_01483T0	75	132	33	0	1	132	55	186	2.00E-57	186
2	A105_03319T0	Z519_12077T0	75	128	32	0	1	128	14	141	1.00E-68	212
1	A105_04486T0	Z519_02314T0	75	56	14	0	1	56	61	116	1.00E-19	84
1	A105_11251T0	Z519_08827T0	75	44	11	0	1	44	259	302	3.00E-17	72.8
39	A105_06640T0	Z519_09025T0	75.07	361	42	2	90	427	147	482	0	527
3	A105_11827T0	Z519_01934T0	75.11	237	51	4	9	240	139	372	2.00E-91	284
1	A105_02496T0	Z519_07030T0	75.34	219	54	0	209	427	1	219	1.00E-112	333
3	A105_09185T0	Z519_05297T0	75.36	276	28	1	62	337	2	237	2.00E-146	417
1	A105_13054T0	Z519_12118T0	75.38	264	56	2	3	261	19	278	2.00E-121	357
1	A105_08203T0	Z519_03293T0	75.41	122	28	2	1	120	1	122	1.00E-52	180
2	A105_06308T0	Z519_10716T0	75.43	460	42	4	107	532	1	423	0	675
1	A105_05183T0	Z519_08072T0	75.44	57	14	0	98	154	43	99	4.00E-21	85.9
62	A105_11816T0	Z519_02873T0	75.44	57	14	0	1	57	109	165	2.00E-23	94
1	A105_06960T0	Z519_06536T0	75.46	163	20	1	1	163	1	143	3.00E-79	236
5	A105_05331T0	Z519_08205T0	75.47	591	68	5	1	514	1	591	0	860
3	A105_05336T0	Z519_08210T0	75.48	261	42	5	1	240	1	260	1.00E-121	352
1	A105_00719T0	Z519_00711T0	75.56	45	11	0	272	316	15	59	2.00E-15	73.2
1	A105_09121T0	Z519_05232T0	75.58	172	41	1	28	199	1	171	5.00E-78	241
1	A105_07919T0	Z519_07757T0	75.61	82	11	1	1	82	1	73	3.00E-33	111
1	A105_11828T0	Z519_01934T0	75.62	160	32	2	1	160	1	153	1.00E-80	248
1	A105_10484T0	Z519_11360T0	75.65	230	47	2	1	227	1	224	8.00E-88	266
2	A105_08053T0	Z519_07888T0	75.69	362	61	3	42	400	31	368	2.00E-168	479
172	A105_00974T0	Z519_00409T0	75.79	252	61	0	1	252	1	252	4.00E-135	384
12	A105_13415T0	Z519_08682T0	75.79	190	46	0	1	190	1	190	2.00E-108	311
6	A105_06266T0	Z519_10748T0	75.82	153	12	1	1	153	1	128	1.00E-73	229
1	A105_06489T0	Z519_03432T0	75.82	91	22	0	1	91	64	154	1.00E-42	143
19	A105_05119T0	Z519_08009T0	75.84	505	42	3	15	500	2	445	0	750
1	A105_02716T0	Z519_07254T0	75.91	328	29	3	5	299	55	365	3.00E-163	482

1	A105_08537T0	Z519_05515T0	75.93	162	39	0	1	162	1	162	2.00E-84	248
15	A105_00847T0	Z519_00794T0	75.97	437	68	4	1	437	1	400	0	652
1	A105_09732T0	Z519_10483T0	76.07	234	45	1	66	288	1	234	7.00E-119	343
15	A105_11452T0	Z519_08731T0	76.12	557	87	2	1209	1765	1	511	0	788
1	A105_05722T0	Z519_11128T0	76.14	88	12	1	14	101	989	1067	1.00E-18	80.9
3	A105_08919T0	Z519_03733T0	76.16	172	41	0	27	198	64	235	3.00E-87	259
2	A105_12027T0	Z519_05702T0	76.19	42	10	0	24	65	63	104	2.00E-15	66.2
3	A105_00552T0	Z519_00562T0	76.23	223	53	0	211	433	12	234	2.00E-114	338
1	A105_00113T0	Z519_00114T0	76.27	59	10	1	107	161	1	59	3.00E-21	87
1	A105_04643T0	Z519_02470T0	76.27	177	34	2	139	307	1	177	8.00E-86	259
3	A105_09079T0	Z519_05190T0	76.29	603	61	3	1	603	1	521	0	785
2	A105_01781T0	Z519_01684T0	76.32	38	9	0	1	38	2	39	5.00E-12	60.8
2	A105_11839T0	Z519_01945T0	76.34	93	21	1	1	93	1	92	3.00E-41	136
7	A105_06030T0	Z519_04707T0	76.42	123	14	1	1	123	116	223	2.00E-57	186
3	A105_00069T0	Z519_00068T0	76.47	34	8	0	176	209	42	75	1.00E-12	62
1	A105_11184T0	Z519_08897T0	76.49	336	71	1	1	328	43	378	8.00E-167	486
8	A105_12765T0	Z519_10824T0	76.54	243	34	1	126	368	1	220	1.00E-136	391
2	A105_11504T0	Z519_08782T0	76.6	188	44	0	1	188	1	188	2.00E-98	286
5	A105_00988T0	Z519_00917T0	76.61	436	53	1	30	465	326	712	0	658
1	A105_11474T0	Z519_08755T0	76.61	248	55	2	1	245	1	248	8.00E-97	286
1	A105_08538T0	Z519_05513T0	76.63	184	43	0	1	184	1	184	4.00E-99	290
2	A105_12643T0	Z519_05393T0	76.69	163	17	1	1	142	220	382	2.00E-80	244
1	A105_00917T0	Z519_00852T0	76.72	1559	257	12	1	1476	1	1536	0	1972
13	A105_08039T0	Z519_07874T0	76.72	421	37	2	1	421	190	549	0	641
68	A105_08993T0	Z519_05098T0	76.73	550	67	4	271	819	1	490	0	818
3	A105_05159T0	Z519_08049T0	76.75	271	33	3	1	247	99	363	3.00E-141	410
4	A105_08876T0	Z519_03778T0	76.75	529	65	6	1	526	1	474	0	785
1	A105_10918T0	Z519_11458T0	76.83	82	19	0	79	160	1	82	7.00E-41	134
1	A105_08089T0	Z519_04311T0	76.84	285	47	2	1	266	1	285	2.00E-143	409
19	A105_08227T0	Z519_09448T0	76.84	285	50	3	1	283	1	271	7.00E-153	431
1	A105_10414T0	Z519_11291T0	76.89	238	24	2	1	207	565	802	4.00E-119	359
1	A105_09346T0	Z519_01221T0	76.92	143	2	1	1	112	1	143	4.00E-69	206
1	A105_12776T0	Z519_10835T0	76.92	52	8	1	1	48	1	52	1.00E-20	80.5
51	A105_06268T0	Z519_10746T0	77	213	15	1	127	305	205	417	2.00E-106	319
1	A105_09522T0	Z519_01066T0	77.01	87	2	1	1	69	1	87	5.00E-25	90.1

3	A105_13040T0	Z519_09294T0	77.01	187	43	0	49	235	297	483	3.00E-92	286
10	A105_01569T0	Z519_01850T0	77.02	470	43	2	1	429	5	450	0	694
7	A105_00964T0	Z519_00903T0	77.03	2347	318	13	741	3086	1	2127	0	3489
2	A105_08543T0	Z519_05508T0	77.08	192	43	1	1133	1324	1	191	4.00E-81	267
48	A105_11465T0	Z519_08748T0	77.11	166	17	1	141	285	1	166	3.00E-84	254
1	A105_09906T0	Z519_10313T0	77.14	35	8	0	77	111	1	35	4.00E-10	55.8
5	A105_06267T0	Z519_10747T0	77.17	219	33	2	26	227	3	221	5.00E-118	338
19	A105_12198T0	Z519_04552T0	77.2	250	42	1	1	235	331	580	1.00E-128	387
1	A105_09837T0	Z519_10380T0	77.22	281	64	0	1	281	1	281	4.00E-151	427
1	A105_10322T0	Z519_10988T0	77.22	281	62	1	1	281	1	279	2.00E-134	387
1	A105_11100T0	Z519_06900T0	77.22	575	57	4	1	574	1	502	0	826
2	A105_12841T0	Z519_07446T0	77.22	338	24	4	1	324	1	299	0	509
1	A105_06901T0	Z519_06599T0	77.27	88	20	0	43	130	349	436	3.00E-38	136
3	A105_02233T0	Z519_11743T0	77.34	406	45	2	1	406	1	359	0	627
4	A105_07494T0	Z519_06060T0	77.38	168	21	2	29	193	16	169	3.00E-84	254
7	A105_05179T0	Z519_08068T0	77.42	527	98	4	18	543	1	507	0	816
2	A105_13042T0	Z519_12109T0	77.42	62	12	1	354	415	8	67	1.00E-24	96.3
1	A105_07290T0	Z519_05867T0	77.47	253	18	2	182	421	63	289	3.00E-130	380
8	A105_11657T0	Z519_08642T0	77.48	262	43	3	8	269	112	357	3.00E-142	407
6	A105_03587T0	Z519_09713T0	77.51	209	16	1	1	209	1	178	5.00E-102	301
12	A105_05650T0	Z519_11199T0	77.51	289	26	1	30	318	1	250	9.00E-160	452
1	A105_08396T0	Z519_05646T0	77.51	209	46	1	1	208	37	245	5.00E-64	201
3	A105_05241T0	Z519_08114T0	77.55	245	35	2	1	228	17	258	2.00E-131	377
1	A105_10023T0	Z519_04146T0	77.55	98	22	0	90	187	2	99	1.00E-47	153
1	A105_10128T0	Z519_04278T0	77.59	116	8	1	1	116	1	98	2.00E-53	165
100	A105_12599T0	Z519_05444T0	77.7	610	69	4	1	610	1	543	0	947
54	A105_03633T0	Z519_09761T0	77.74	274	46	1	169	442	1	259	3.00E-147	436
13	A105_06265T0	Z519_10748T0	77.74	274	47	3	1	261	158	430	5.00E-143	411
1	A105_03018T0	Z519_12012T0	77.78	72	16	0	1	72	1	72	5.00E-33	110
1	A105_10268T0	Z519_10934T0	77.78	99	19	1	1	99	1	96	2.00E-43	152
3	A105_10948T0	Z519_11487T0	77.78	36	8	0	1	36	55	90	3.00E-13	62.8
1	A105_09624T0	Z519_10581T0	77.83	230	26	2	1	205	1	230	1.00E-124	355
4	A105_07336T0	Z519_05908T0	77.85	149	33	0	2	150	133	281	1.00E-79	243
79	A105_13315T0	Z519_05018T0	77.85	492	41	3	1	476	1	440	0	724
1	A105_00603T0	Z519_00614T0	77.86	271	55	1	6	271	162	432	3.00E-147	434

38	A105_11675T0	Z519_08621T0	77.87	375	39	2	1	338	222	589	0	550
6	A105_13128T0	Z519_11254T0	77.87	470	59	3	178	647	1	425	0	686
10	A105_02802T0	Z519_07334T0	77.9	276	22	1	1	276	1	237	1.00E-147	416
15	A105_04298T0	Z519_03578T0	77.94	281	36	3	146	426	1	255	4.00E-150	429
1	A105_12355T0	Z519_12440T0	78	200	33	1	1	200	65	253	1.00E-104	305
1	A105_05603T0	Z519_03711T0	78.01	191	21	2	1	186	1	175	2.00E-97	283
22	A105_01338T0	Z519_11926T0	78.07	228	31	3	249	475	1	210	4.00E-114	344
1	A105_03149T0	Z519_10002T0	78.12	64	13	1	2	65	3	65	8.00E-27	99
6	A105_05681T0	Z519_11168T0	78.12	512	98	5	1	501	1	509	0	730
1	A105_07474T0	Z519_06042T0	78.12	32	7	0	1	32	1	32	2.00E-10	53.9
1	A105_07650T0	Z519_06213T0	78.12	32	7	0	4	35	153	184	6.00E-10	53.5
8	A105_07677T0	Z519_06241T0	78.14	334	54	3	1	332	1	317	1.00E-173	488
4	A105_08421T0	Z519_05629T0	78.16	87	19	0	415	501	1	87	3.00E-33	122
2	A105_09248T0	Z519_05357T0	78.16	87	19	0	6	92	13	99	9.00E-43	137
60	A105_08359T0	Z519_09572T0	78.19	298	38	1	1	271	1	298	7.00E-156	439
20	A105_01585T0	Z519_04089T0	78.21	78	17	0	1	78	398	475	5.00E-37	130
56	A105_07651T0	Z519_06215T0	78.21	78	17	0	37	114	84	161	3.00E-35	124
1	A105_00323T0	Z519_00333T0	78.23	441	19	2	1	364	1	441	0	684
32	A105_00428T0	Z519_00434T0	78.26	161	21	1	299	459	1	147	2.00E-79	253
12	A105_01989T0	Z519_01470T0	78.28	419	60	3	1	400	1	407	0	648
1	A105_02580T0	Z519_07110T0	78.34	217	43	1	118	330	46	262	5.00E-104	308
1	A105_03909T0	Z519_03223T0	78.34	554	109	3	2	546	137	688	0	807
1	A105_02806T0	Z519_07337T0	78.35	97	18	1	1	97	22	115	4.00E-46	151
1	A105_08342T0	Z519_09556T0	78.36	268	53	4	1	267	1	264	9.00E-138	392
1	A105_11139T0	Z519_08936T0	78.36	536	83	1	1	503	1	536	0	848
2	A105_05712T0	Z519_11138T0	78.44	269	49	4	11	279	1	260	2.00E-140	406
3	A105_06546T0	Z519_09119T0	78.45	181	35	2	193	370	1	180	6.00E-87	266
8	A105_01568T0	Z519_01851T0	78.46	130	27	1	79	208	84	212	2.00E-68	217
1	A105_05026T0	Z519_07916T0	78.46	65	14	0	1	65	1	65	5.00E-27	97.4
1	A105_03365T0	Z519_10187T0	78.54	247	42	2	1	247	1	236	3.00E-125	363
6	A105_00354T0	Z519_00352T0	78.57	182	39	0	1	182	1	182	3.00E-93	280
1	A105_00646T0	Z519_06003T0	78.57	98	21	0	265	362	1	98	1.00E-46	155
2	A105_09508T0	Z519_01082T0	78.57	98	21	0	1	98	1	98	5.00E-45	153
1	A105_07956T0	Z519_07797T0	78.6	299	63	1	1	298	1	299	5.00E-153	435
3	A105_07690T0	Z519_07513T0	78.62	421	46	1	1	421	1	377	0	605

2	A105_08038T0	Z519_07874T0	78.63	131	12	3	1	123	1	123	2.00E-62	202
2	A105_12205T0	Z519_04546T0	78.65	89	19	0	1	89	31	119	1.00E-45	147
1	A105_04759T0	Z519_02587T0	78.67	375	66	2	1	362	1	374	0	567
3	A105_04679T0	Z519_02509T0	78.81	335	37	2	32	366	2	302	0	529
2	A105_05306T0	Z519_08179T0	78.85	227	30	1	595	821	1	209	4.00E-112	343
2	A105_11906T0	Z519_02009T0	78.87	71	15	0	76	146	1	71	4.00E-31	108
1	A105_13135T0	Z519_11261T0	78.89	90	13	1	1	90	1	84	3.00E-34	120
5	A105_11706T0	Z519_02973T0	78.9	602	87	6	1	599	17	581	0	850
2	A105_02353T0	Z519_11618T0	78.95	399	69	3	1	399	1	384	0	598
1	A105_02808T0	Z519_07339T0	78.95	95	0	1	34	108	94	188	7.00E-35	120
1	A105_06060T0	Z519_04681T0	78.95	57	12	0	350	406	8	64	7.00E-26	99.8
2	A105_10747T0	Z519_09935T0	78.95	228	40	2	1	224	1	224	1.00E-124	360
1	A105_10732T0	Z519_09920T0	78.96	518	85	3	12	528	1	495	0	798
11	A105_13219T0	Z519_12504T0	78.98	314	44	1	1	314	145	436	2.00E-177	504
7	A105_11741T0	Z519_02939T0	79.01	181	19	1	143	323	1	162	2.00E-94	280
11	A105_04778T0	Z519_02605T0	79.02	572	92	9	655	1208	3	564	0	843
7	A105_00817T0	Z519_00766T0	79.04	544	56	2	246	789	1	486	0	853
9	A105_13444T0	Z519_12176T0	79.04	415	47	4	1	414	1	376	0	639
4	A105_04187T0	Z519_03466T0	79.07	43	9	0	56	98	2	44	2.00E-18	74.3
1	A105_09153T0	Z519_05263T0	79.1	177	36	1	51	227	1	176	3.00E-94	276
2	A105_08904T0	Z519_03749T0	79.14	350	45	5	1	343	1	329	0	510
1	A105_09042T0	Z519_05146T0	79.17	432	82	2	1	432	1	424	0	678
8	A105_04901T0	Z519_02726T0	79.19	173	36	0	190	362	108	280	1.00E-88	273
13	A105_06086T0	Z519_04656T0	79.19	298	53	2	1	298	1	289	4.00E-170	477
1	A105_12039T0	Z519_05689T0	79.19	346	64	3	1	340	33	376	5.00E-177	499
1	A105_11852T0	Z519_01958T0	79.21	101	20	1	33	132	286	386	2.00E-47	162
1	A105_12287T0	Z519_04467T0	79.22	462	55	4	1	440	1	443	0	602
2	A105_13041T0	Z519_09436T0	79.22	77	16	0	54	130	2	78	1.00E-36	131
1	A105_00043T0	Z519_00043T0	79.25	53	11	0	21	73	60	112	3.00E-22	88.6
1	A105_00865T0	Z519_00814T0	79.27	82	17	0	1	82	138	219	4.00E-39	132
1	A105_12183T0	Z519_04856T0	79.37	63	13	0	1	63	1	63	7.00E-27	101
5	A105_13423T0	Z519_12307T0	79.37	504	57	4	1	457	232	735	0	800
9	A105_09468T0	Z519_01118T0	79.39	165	29	1	1	160	1	165	2.00E-83	259
1	A105_02141T0	Z519_01337T0	79.44	321	56	3	43	356	1	318	6.00E-164	464
1	A105_08371T0	Z519_09583T0	79.49	117	14	1	44	160	1	107	4.00E-58	184

10	A105_10767T0	Z519_12298T0	79.52	415	34	3	1	382	1	397	0	645
1	A105_02253T0	Z519_11726T0	79.59	196	30	2	1	195	1	187	2.00E-100	291
22	A105_04001T0	Z519_03299T0	79.61	103	21	0	292	394	14	116	1.00E-53	177
1	A105_03506T0	Z519_09630T0	79.62	373	48	2	1	373	1	345	1.00E-179	506
10	A105_12381T0	Z519_12465T0	79.63	108	21	1	7	114	33	139	2.00E-50	165
10	A105_08361T0	Z519_09574T0	79.68	251	32	1	59	309	1	232	1.00E-141	404
4	A105_11713T0	Z519_02966T0	79.69	64	13	0	25	88	111	174	6.00E-30	106
1	A105_04054T0	Z519_03330T0	79.71	276	56	0	1	276	27	302	1.00E-154	436
1	A105_04420T0	Z519_02252T0	79.71	69	11	1	1	66	1	69	3.00E-32	109
27	A105_08082T0	Z519_04318T0	79.73	370	40	2	1	370	1	335	0	565
1	A105_00244T0	Z519_00243T0	79.74	548	107	1	1	544	1	548	0	843
3	A105_12520T0	Z519_02852T0	79.76	84	16	1	28	110	2	85	6.00E-39	130
1	A105_01132T0	Z519_08405T0	79.77	257	29	1	349	605	1	234	2.00E-131	397
53	A105_08096T0	Z519_04305T0	79.78	445	54	4	1	409	1	445	0	670
2	A105_08397T0	Z519_05645T0	79.78	267	54	0	1	267	1	267	6.00E-145	422
4	A105_03093T0	Z519_11945T0	79.79	292	10	1	1	292	1	243	5.00E-161	451
1	A105_12731T0	Z519_02810T0	79.79	188	11	1	1	161	268	455	1.00E-99	296
1	A105_11945T0	Z519_05788T0	79.82	114	23	0	13	126	1	114	5.00E-58	182
1	A105_00085T0	Z519_00084T0	79.89	363	60	2	1	363	1	350	0	582
40	A105_09941T0	Z519_04206T0	79.89	348	42	2	1	320	1	348	0	541
2	A105_08455T0	Z519_05597T0	79.9	403	46	3	60	429	10	410	0	635
17	A105_06185T0	Z519_00650T0	79.91	453	90	1	1	453	1	452	0	778
17	A105_01160T0	Z519_08428T0	79.93	294	23	1	1	258	1	294	1.00E-162	466
1	A105_11285T0	Z519_02155T0	79.93	294	56	1	1	294	266	556	3.00E-134	397
11	A105_00872T0	Z519_00821T0	80	295	42	2	89	383	1	278	6.00E-155	441
1	A105_01086T0	Z519_08364T0	80	195	25	2	1	193	1	183	4.00E-112	325
2	A105_03339T0	Z519_10163T0	80	255	17	1	1	221	1	255	5.00E-138	390
1	A105_07660T0	Z519_06225T0	80	100	20	0	57	156	25	124	2.00E-45	149
2	A105_08935T0	Z519_05038T0	80	95	18	1	4	98	1	94	2.00E-48	157
2	A105_12593T0	Z519_05450T0	80	295	54	2	1	292	90	382	5.00E-134	388
1	A105_04696T0	Z519_02526T0	80.08	246	47	2	1	245	1	245	5.00E-132	375
12	A105_00476T0	Z519_00483T0	80.11	367	60	3	1	367	1	354	0	572
1	A105_09658T0	Z519_10546T0	80.12	166	32	1	1	166	1	165	1.00E-90	267
12	A105_01151T0	Z519_08418T0	80.17	237	46	1	384	619	1	237	1.00E-129	383
5	A105_06395T0	Z519_10646T0	80.19	414	50	5	475	888	5	386	0	588

1	A105_07811T0	Z519_07626T0	80.2	606	99	3	1	585	31	636	0	939
4	A105_00219T0	Z519_00217T0	80.21	187	10	1	10	196	6	165	1.00E-102	296
1	A105_00849T0	Z519_00796T0	80.22	182	28	3	88	265	1	178	2.00E-73	236
1	A105_13142T0	Z519_04380T0	80.22	1208	203	4	1	1207	1	1173	0	1806
1	A105_12798T0	Z519_12790T0	80.25	162	31	1	1	161	116	277	1.00E-91	271
1	A105_08952T0	Z519_05055T0	80.28	71	14	0	1	71	83	153	2.00E-35	121
58	A105_01584T0	Z519_04089T0	80.3	66	13	0	1	66	129	194	4.00E-34	121
1	A105_02478T0	Z519_07012T0	80.3	66	6	2	138	203	8	66	5.00E-27	101
5	A105_11182T0	Z519_08897T0	80.3	66	13	0	6	71	685	750	1.00E-31	116
1	A105_09359T0	Z519_01209T0	80.33	122	6	2	25	146	58	161	2.00E-61	193
1	A105_05146T0	Z519_08035T0	80.36	168	13	1	1	168	1	148	4.00E-66	216
3	A105_05091T0	Z519_07981T0	80.38	948	88	4	1	882	1	916	0	1334
3	A105_13287T0	Z519_12145T0	80.41	388	68	1	1	388	1	380	0	630
1	A105_07314T0	Z519_05889T0	80.42	143	28	0	110	252	1	143	2.00E-73	227
49	A105_08141T0	Z519_09364T0	80.43	235	32	1	203	423	2	236	1.00E-127	375
1	A105_05025T0	Z519_07915T0	80.44	271	53	0	1	271	1	271	6.00E-149	423
4	A105_12490T0	Z519_02824T0	80.45	353	60	4	1	353	1	344	0	555
70	A105_08293T0	Z519_09511T0	80.49	687	93	3	88	755	1	665	0	1096
17	A105_12711T0	Z519_09796T0	80.55	293	31	1	26	318	21	287	2.00E-169	475
1	A105_12924T0	Z519_11062T0	80.55	329	42	1	1	329	1	307	2.00E-162	459
4	A105_01197T0	Z519_08464T0	80.57	489	94	1	1	489	36	523	0	780
1	A105_06523T0	Z519_09142T0	80.6	268	34	1	1	268	1	250	5.00E-150	432
22	A105_04286T0	Z519_03565T0	80.61	98	11	1	1	98	1	90	3.00E-50	156
7	A105_07080T0	Z519_06420T0	80.63	253	49	0	1	253	1	253	2.00E-137	396
7	A105_07523T0	Z519_06088T0	80.64	439	33	1	21	459	32	418	0	670
8	A105_07204T0	Z519_06296T0	80.65	310	38	2	37	346	1	288	2.00E-177	496
3	A105_00659T0	Z519_00657T0	80.66	1329	138	5	1	1252	1	1287	0	2129
7	A105_01614T0	Z519_01803T0	80.67	326	63	0	1	326	91	416	0	530
1	A105_08482T0	Z519_05570T0	80.7	575	90	7	17	580	1	565	0	732
2	A105_09851T0	Z519_06380T0	80.73	218	14	1	1	218	153	342	2.00E-86	262
31	A105_10083T0	Z519_06264T0	80.74	379	72	1	1	378	1	379	0	641
1	A105_13048T0	Z519_12112T0	80.75	187	36	0	1	187	43	229	3.00E-104	302
1	A105_06752T0	Z519_06757T0	80.77	52	10	0	184	235	1	52	1.00E-20	83.2
1	A105_04437T0	Z519_02268T0	80.79	151	28	1	1	151	1	150	5.00E-58	194
1	A105_05520T0	Z519_03636T0	80.79	203	4	1	24	226	38	205	7.00E-114	327

1	A105_05987T0	Z519_04749T0	80.82	558	56	6	1	522	1	543	0	837
4	A105_06794T0	Z519_06711T0	80.82	73	14	0	357	429	69	141	3.00E-32	120
1	A105_05953T0	Z519_04782T0	80.83	673	75	5	1	621	1	671	0	1066
1	A105_01612T0	Z519_01805T0	80.87	115	8	1	1	101	1	115	3.00E-44	141
1	A105_07471T0	Z519_06039T0	80.9	89	16	1	1	89	1	88	1.00E-46	147
10	A105_01018T0	Z519_00942T0	80.92	1153	177	6	1	1153	1	1110	0	1827
2	A105_07444T0	Z519_06014T0	80.94	278	43	2	1	268	1	278	5.00E-153	446
1	A105_10574T0	Z519_12571T0	80.97	636	79	3	24	652	6	606	0	952
1	A105_03849T0	Z519_03167T0	80.98	410	61	2	1	408	1	395	0	659
4	A105_12226T0	Z519_04527T0	80.99	142	27	0	84	225	9	150	7.00E-79	236
1	A105_06749T0	Z519_06760T0	81	200	38	0	1	200	1	200	5.00E-114	326
2	A105_12578T0	Z519_05465T0	81	279	53	0	1	279	158	436	1.00E-161	461
1	A105_08036T0	Z519_07872T0	81.01	79	15	0	7	85	46	124	3.00E-37	127
1	A105_09741T0	Z519_10480T0	81.01	316	45	3	1	303	50	363	2.00E-109	325
3	A105_02235T0	Z519_11741T0	81.02	295	38	1	28	322	62	338	2.00E-166	470
2	A105_00234T0	Z519_00232T0	81.03	195	15	1	1	173	1	195	3.00E-99	287
34	A105_07696T0	Z519_07517T0	81.03	290	40	1	49	338	1	275	1.00E-172	485
3	A105_10938T0	Z519_11477T0	81.03	58	11	0	1	58	174	231	4.00E-27	98.6
1	A105_11982T0	Z519_05750T0	81.05	190	35	1	1	189	1	190	2.00E-103	298
5	A105_13043T0	Z519_12111T0	81.06	132	24	1	151	281	1	132	3.00E-67	209
4	A105_09337T0	Z519_01230T0	81.08	518	92	1	1	512	121	638	0	801
2	A105_09496T0	Z519_01087T0	81.08	333	61	1	1	333	1	331	7.00E-179	521
3	A105_12957T0	Z519_11094T0	81.09	201	17	1	23	223	461	640	2.00E-108	329
177	A105_00994T0	Z519_00922T0	81.1	164	28	1	1	161	1	164	2.00E-89	267
3	A105_05519T0	Z519_03633T0	81.1	127	24	0	7	133	192	318	2.00E-69	214
1	A105_00605T0	Z519_00616T0	81.13	159	4	1	1	133	1	159	3.00E-86	251
1	A105_10025T0	Z519_04143T0	81.13	265	42	1	1	265	1	257	7.00E-151	425
10	A105_01157T0	Z519_08425T0	81.14	281	15	1	1	281	1	243	1.00E-163	462
9	A105_04439T0	Z519_02270T0	81.15	122	23	0	1	122	225	346	1.00E-61	199
1	A105_01185T0	Z519_08453T0	81.17	154	23	2	1	149	75	227	3.00E-67	217
2	A105_04645T0	Z519_02473T0	81.17	1142	186	2	1	1140	1	1115	0	1783
1	A105_02851T0	Z519_07382T0	81.18	85	16	0	1	85	1	85	3.00E-43	143
1	A105_02775T0	Z519_07307T0	81.2	117	5	1	1	117	1	100	9.00E-31	107
9	A105_02909T0	Z519_12767T0	81.2	351	49	2	1	351	1	334	0	577
1	A105_10989T0	Z519_11524T0	81.21	697	131	0	1	697	1	697	0	1088

2	A105_03900T0	Z519_03216T0	81.22	575	96	4	1	575	205	767	0	879
3	A105_12657T0	Z519_12737T0	81.25	128	8	1	1	112	65	192	1.00E-66	206
8	A105_00251T0	Z519_00251T0	81.28	486	52	3	38	504	1	466	0	776
27	A105_05769T0	Z519_04968T0	81.29	310	53	2	118	422	15	324	1.00E-179	507
1	A105_10517T0	Z519_12626T0	81.33	766	92	3	48	813	2	716	0	1219
12	A105_03712T0	Z519_03031T0	81.34	284	30	4	1	284	1	261	2.00E-159	447
146	A105_11752T0	Z519_02928T0	81.34	434	17	5	92	522	4	376	0	672
3	A105_07379T0	Z519_05951T0	81.37	161	8	2	1	139	113	273	2.00E-84	251
127	A105_11062T0	Z519_06863T0	81.37	526	53	3	1	526	1	481	0	835
1	A105_06840T0	Z519_06662T0	81.38	956	168	4	1	956	1	946	0	1426
1	A105_11201T0	Z519_08881T0	81.38	247	32	3	1	243	1	237	3.00E-125	358
1	A105_07408T0	Z519_05980T0	81.4	43	8	0	68	110	18	60	4.00E-17	71.2
1	A105_04479T0	Z519_02308T0	81.42	366	12	2	1	366	1	310	0	537
1	A105_10031T0	Z519_04136T0	81.43	754	130	2	1	750	459	1206	0	1219
13	A105_08093T0	Z519_04307T0	81.44	361	25	1	1	319	1	361	0	555
1	A105_11290T0	Z519_02150T0	81.46	480	88	1	1	480	190	668	0	713
7	A105_05755T0	Z519_04982T0	81.51	822	149	3	41	862	25	843	0	1298
2	A105_03363T0	Z519_10186T0	81.53	157	22	2	1	151	477	632	5.00E-71	227
8	A105_09005T0	Z519_05110T0	81.54	325	45	1	1	325	1	310	0	545
2	A105_13283T0	Z519_12150T0	81.54	1024	173	2	1	1016	1	1016	0	1701
15	A105_06878T0	Z519_06621T0	81.55	336	35	2	150	485	1	309	0	536
9	A105_01074T0	Z519_00995T0	81.56	141	8	1	1	123	404	544	6.00E-69	223
15	A105_01481T0	Z519_08538T0	81.6	125	23	0	1	125	23	147	7.00E-63	225
2	A105_08862T0	Z519_03791T0	81.61	299	23	1	1	299	1	267	1.00E-163	459
18	A105_12992T0	Z519_04407T0	81.63	98	6	1	1	98	1	86	3.00E-48	160
1	A105_09478T0	Z519_01108T0	81.69	295	45	2	1	294	1	287	4.00E-129	372
1	A105_01923T0	Z519_01537T0	81.7	153	23	2	1	151	1	150	7.00E-64	195
1	A105_07954T0	Z519_07796T0	81.71	82	15	0	1	82	34	115	1.00E-26	98.2
65	A105_01708T0	Z519_01716T0	81.72	268	31	1	1	250	1	268	7.00E-158	449
4	A105_02120T0	Z519_01359T0	81.72	186	17	2	551	736	2	170	3.00E-99	310
2	A105_10973T0	Z519_11506T0	81.72	93	17	0	32	124	105	197	2.00E-45	157
3	A105_06861T0	Z519_06641T0	81.74	334	31	1	135	468	1	304	0	543
16	A105_09200T0	Z519_05314T0	81.74	356	38	4	1	354	1	331	0	541
1	A105_12416T0	Z519_06261T0	81.75	274	18	1	1	242	1	274	9.00E-156	439
1	A105_11470T0	Z519_08753T0	81.76	329	58	1	1	329	1	327	0	534

4	A105_06208T0	Z519_10791T0	81.8	533	57	4	1	512	1	514	0	881
1	A105_07331T0	Z519_05903T0	81.82	121	22	0	40	160	35	155	2.00E-68	207
87	A105_06472T0	Z519_09190T0	81.84	402	29	2	1	395	20	384	0	641
1	A105_04891T0	Z519_02715T0	81.93	83	15	0	1	83	46	128	3.00E-42	136
1	A105_04154T0	Z519_03434T0	81.96	255	37	4	1	248	1	253	1.00E-124	358
3	A105_10762T0	Z519_09952T0	81.97	366	50	2	1	351	1	365	0	598
1	A105_05907T0	Z519_04827T0	81.98	111	20	0	188	298	1	111	6.00E-56	181
1	A105_05141T0	Z519_08031T0	82.01	895	148	2	1	882	1	895	0	1442
1	A105_11126T0	Z519_08949T0	82.01	139	24	1	1	138	1	139	2.00E-57	177
1	A105_03560T0	Z519_09683T0	82.02	456	60	4	1	438	1	452	0	659
1	A105_09322T0	Z519_01243T0	82.02	445	73	4	1	442	10	450	0	530
33	A105_10941T0	Z519_11480T0	82.04	206	36	1	24	228	60	265	4.00E-115	333
4	A105_01327T0	Z519_08591T0	82.05	156	28	0	1	156	1	156	8.00E-88	261
12	A105_11790T0	Z519_02891T0	82.07	329	41	3	1	311	1	329	0	550
1	A105_00011T0	Z519_00010T0	82.08	240	43	0	10	249	1	240	4.00E-143	406
4	A105_01109T0	Z519_08383T0	82.09	659	93	7	1	649	1	644	0	1004
3	A105_06902T0	Z519_06598T0	82.09	134	24	0	20	153	26	159	6.00E-75	226
3	A105_01131T0	Z519_08405T0	82.1	257	31	1	1	257	256	497	2.00E-140	421
2	A105_05496T0	Z519_03612T0	82.12	179	32	0	1	179	1	179	2.00E-96	289
1	A105_10021T0	Z519_04149T0	82.14	112	19	1	186	297	1	111	2.00E-58	185
1	A105_09869T0	Z519_10347T0	82.15	297	18	1	1	262	5	301	6.00E-178	495
1	A105_08204T0	Z519_05244T0	82.17	129	23	0	27	155	13	141	4.00E-63	210
20	A105_03810T0	Z519_03131T0	82.18	101	17	1	98	197	1	101	1.00E-54	176
5	A105_10743T0	Z519_09931T0	82.18	331	42	2	1	331	1	314	0	550
7	A105_00694T0	Z519_00688T0	82.19	567	29	3	1	495	1	567	0	855
1	A105_07201T0	Z519_06299T0	82.19	146	2	1	1	146	1	122	2.00E-79	233
12	A105_09181T0	Z519_07742T0	82.19	365	45	1	78	422	1	365	0	625
2	A105_09773T0	Z519_10449T0	82.19	247	27	2	121	364	12	244	1.00E-138	397
149	A105_12700T0	Z519_09808T0	82.2	354	37	2	163	491	1	353	0	548
7	A105_02169T0	Z519_01310T0	82.21	562	79	5	2	542	74	635	0	894
1	A105_02672T0	Z519_07205T0	82.21	163	28	1	1	163	1	162	2.00E-68	207
1	A105_04706T0	Z519_02536T0	82.22	585	97	4	1	584	1	579	0	885
2	A105_12054T0	Z519_12312T0	82.22	90	15	1	1	90	38	126	4.00E-46	146
1	A105_13071T0	Z519_12135T0	82.24	214	37	1	1	214	1	213	3.00E-126	358
20	A105_08373T0	Z519_05671T0	82.25	738	102	5	1	713	1	734	0	1212

96	A105_03575T0	Z519_09697T0	82.26	451	53	1	189	639	1	424	0	753
1	A105_03447T0	Z519_10269T0	82.27	361	50	3	1	361	1	347	9.00E-167	473
6	A105_04908T0	Z519_02734T0	82.27	598	82	2	47	620	2	599	0	962
1	A105_05140T0	Z519_08030T0	82.27	141	7	1	1	123	1	141	3.00E-75	222
7	A105_10331T0	Z519_10997T0	82.27	423	29	2	25	443	53	433	0	708
1	A105_12933T0	Z519_11071T0	82.31	407	58	2	1	395	1	405	0	639
7	A105_06915T0	Z519_06584T0	82.32	741	86	7	1	738	1	699	0	1174
1	A105_03609T0	Z519_09737T0	82.34	770	136	0	1	770	1	770	0	1322
1	A105_01078T0	Z519_00997T0	82.35	34	6	0	140	173	1	34	2.00E-12	61.2
2	A105_02868T0	Z519_07401T0	82.35	221	31	1	201	421	1	213	6.00E-124	361
2	A105_07649T0	Z519_06212T0	82.35	68	11	1	84	151	1	67	2.00E-32	112
8	A105_05481T0	Z519_08356T0	82.38	193	31	1	1	193	66	255	4.00E-101	300
1	A105_01703T0	Z519_01719T0	82.4	250	39	3	1	248	1	247	3.00E-118	342
2	A105_01010T0	Z519_00936T0	82.44	467	53	1	39	505	1	438	0	797
1	A105_03604T0	Z519_09731T0	82.45	188	31	1	1	188	1	186	1.00E-100	308
14	A105_08887T0	Z519_03766T0	82.45	302	16	1	1	302	1	265	2.00E-177	494
1	A105_09380T0	Z519_01188T0	82.45	644	82	5	1	615	204	845	0	1023
4	A105_12922T0	Z519_11060T0	82.46	228	40	0	175	402	5	232	6.00E-128	371
7	A105_04084T0	Z519_03359T0	82.49	297	42	1	1	297	50	336	4.00E-176	497
164	A105_06260T0	Z519_10753T0	82.49	217	5	1	1	217	1	184	2.00E-125	358
86	A105_10766T0	Z519_12299T0	82.5	480	19	2	1	415	1	480	0	758
17	A105_05477T0	Z519_08352T0	82.51	1069	151	4	1	1056	1	1046	0	1767
2	A105_11918T0	Z519_02020T0	82.51	223	29	3	1	223	1	213	4.00E-92	273
13	A105_02699T0	Z519_07234T0	82.52	978	131	6	965	1941	1	939	0	1597
18	A105_09228T0	Z519_05341T0	82.52	103	11	1	1	103	1	96	1.00E-52	174
4	A105_11698T0	Z519_08596T0	82.52	103	17	1	1	103	1	102	3.00E-54	177
3	A105_03338T0	Z519_10162T0	82.55	298	32	3	32	309	53	350	8.00E-172	483
1	A105_08526T0	Z519_05526T0	82.55	980	142	3	1	962	1	969	0	1622
17	A105_02049T0	Z519_02659T0	82.56	453	79	0	5	457	3	455	0	799
103	A105_08280T0	Z519_09501T0	82.56	539	49	2	1	539	1	494	0	849
2	A105_06681T0	Z519_08988T0	82.59	425	73	1	184	607	1	425	0	664
1	A105_01300T0	Z519_08564T0	82.61	138	6	1	3	140	144	263	8.00E-70	213
121	A105_02204T0	Z519_11772T0	82.61	253	14	2	64	294	12	256	4.00E-146	414
1	A105_10472T0	Z519_11348T0	82.62	748	85	3	1	746	1	705	0	1112
1	A105_01906T0	Z519_01556T0	82.63	190	33	0	1	190	1	190	3.00E-114	326

1	A105_06306T0	Z519_02372T0	82.64	121	21	0	48	168	1645	1765	3.00E-44	159
2	A105_09354T0	Z519_01214T0	82.64	265	46	0	166	430	86	350	1.00E-160	470
7	A105_05469T0	Z519_08345T0	82.67	352	28	1	1	319	1	352	1.00E-180	508
8	A105_11170T0	Z519_08908T0	82.67	75	13	0	51	125	100	174	8.00E-35	121
1	A105_09054T0	Z519_05166T0	82.68	179	31	0	1	179	1	179	1.00E-95	278
1	A105_11238T0	Z519_08839T0	82.69	52	9	0	44	95	1	52	4.00E-23	87
32	A105_11433T0	Z519_08713T0	82.69	104	18	0	156	259	111	214	6.00E-53	174
1	A105_02390T0	Z519_06920T0	82.71	752	129	1	1	752	1	751	0	1205
1	A105_10186T0	Z519_10852T0	82.71	266	35	2	1	256	1	265	3.00E-158	444
1	A105_12917T0	Z519_11056T0	82.73	278	46	2	1	278	1	276	3.00E-154	434
1	A105_03259T0	Z519_10108T0	82.77	528	80	4	1	518	1	527	0	807
1	A105_09667T0	Z519_10538T0	82.81	64	11	0	17	80	179	242	1.00E-30	111
1	A105_05088T0	Z519_07978T0	82.82	227	39	0	1	227	1	227	4.00E-106	308
1	A105_09220T0	Z519_05334T0	82.82	646	102	2	133	777	12	649	0	1038
3	A105_11934T0	Z519_02034T0	82.83	99	17	0	1	99	41	139	2.00E-52	166
1	A105_00302T0	Z519_00312T0	82.86	105	17	1	1	104	1	105	7.00E-17	73.2
132	A105_07445T0	Z519_06014T0	82.86	426	51	1	97	522	272	675	0	698
1	A105_11853T0	Z519_01958T0	82.86	105	18	0	20	124	395	499	2.00E-53	178
2	A105_13236T0	Z519_12522T0	82.89	76	13	0	120	195	1	76	4.00E-36	125
3	A105_05374T0	Z519_08248T0	82.91	158	16	1	25	171	80	237	2.00E-88	262
16	A105_08132T0	Z519_09355T0	82.91	597	44	2	1	539	1	597	0	974
9	A105_02202T0	Z519_11774T0	82.92	281	17	1	1	281	1	250	4.00E-168	469
1	A105_09751T0	Z519_10470T0	82.93	41	3	1	118	158	45	81	6.00E-14	65.1
12	A105_11854T0	Z519_01958T0	82.93	82	14	0	1	82	533	614	3.00E-40	143
2	A105_07963T0	Z519_07802T0	82.94	381	35	3	1	381	9	359	0	551
25	A105_11402T0	Z519_02057T0	82.99	588	46	4	1	534	1	588	0	943
41	A105_10950T0	Z519_11488T0	83.06	124	21	0	1	124	1	124	4.00E-65	200
2	A105_00150T0	Z519_00150T0	83.08	331	22	2	1	302	42	367	0	549
1	A105_02947T0	Z519_12079T0	83.08	195	32	1	1	195	1	194	6.00E-115	328
4	A105_01475T0	Z519_11791T0	83.12	480	64	2	1	463	1	480	0	807
2	A105_06721T0	Z519_06788T0	83.12	397	38	1	1	397	1	368	0	630
8	A105_12601T0	Z519_05442T0	83.13	83	14	0	1	83	81	163	6.00E-41	141
1	A105_03643T0	Z519_09772T0	83.19	113	17	1	1	111	1	113	1.00E-39	130
9	A105_13176T0	Z519_04347T0	83.19	476	49	1	98	573	1	445	0	810
1	A105_11533T0	Z519_11565T0	83.26	215	36	0	1	215	1	215	5.00E-128	363

1	A105_02727T0	Z519_07262T0	83.27	257	39	3	1	254	598	853	8.00E-139	414
2	A105_03231T0	Z519_10081T0	83.27	496	64	2	1	477	1	496	0	776
1	A105_12732T0	Z519_02809T0	83.27	263	14	2	1	233	68	330	4.00E-156	439
1	A105_02334T0	Z519_11640T0	83.33	108	11	2	1	102	17	123	7.00E-56	171
1	A105_03618T0	Z519_09745T0	83.33	216	36	0	1	216	1	216	3.00E-125	356
1	A105_06863T0	Z519_06639T0	83.33	306	26	3	1	305	1	282	6.00E-141	402
1	A105_09858T0	Z519_10359T0	83.33	90	15	0	24	113	17	106	3.00E-48	152
2	A105_10241T0	Z519_10906T0	83.33	54	9	0	23	76	78	131	2.00E-25	94
15	A105_12800T0	Z519_12788T0	83.33	78	13	0	70	147	1	78	8.00E-40	132
2	A105_13475T0	Z519_01381T0	83.33	84	14	0	97	180	136	219	9.00E-45	149
1	A105_05381T0	Z519_08255T0	83.36	715	110	6	1	712	94	802	0	1153
2	A105_04642T0	Z519_02469T0	83.38	373	20	1	1	331	1	373	0	633
1	A105_01465T0	Z519_11802T0	83.39	1475	204	3	3	1473	1	1438	0	2222
1	A105_03980T0	Z519_03278T0	83.39	572	87	3	1	564	1	572	1.00E-177	517
2	A105_12528T0	Z519_02859T0	83.39	283	47	0	1	283	1	283	8.00E-177	493
15	A105_00416T0	Z519_00417T0	83.43	175	29	0	407	581	16	190	2.00E-92	287
5	A105_01610T0	Z519_01807T0	83.43	332	38	1	1	332	1	315	0	553
1	A105_03078T0	Z519_11960T0	83.45	290	17	1	1	259	1	290	4.00E-172	480
2	A105_05315T0	Z519_08190T0	83.46	399	50	3	2	399	9	392	0	541
3	A105_00213T0	Z519_00213T0	83.49	315	27	2	1	315	1	290	0	530
1	A105_05877T0	Z519_04857T0	83.49	854	140	1	134	987	1	853	0	1424
1	A105_09816T0	Z519_10404T0	83.52	91	15	0	1	91	45	135	3.00E-48	159
1	A105_03864T0	Z519_03182T0	83.53	346	23	2	1	346	1	312	2.00E-152	437
3	A105_02368T0	Z519_11604T0	83.55	377	49	1	1	377	1	364	0	576
23	A105_12623T0	Z519_05417T0	83.57	554	54	2	94	646	2	519	0	949
1	A105_00746T0	Z519_00739T0	83.58	67	11	0	50	116	1	67	2.00E-32	110
2	A105_05171T0	Z519_08058T0	83.58	67	10	1	39	104	151	217	2.00E-31	113
6	A105_01786T0	Z519_01678T0	83.59	524	51	3	1	522	6	496	0	857
3	A105_06362T0	Z519_10678T0	83.59	195	24	1	93	287	32	218	6.00E-100	295
1	A105_07687T0	Z519_07510T0	83.61	415	24	1	1	415	1	371	0	694
1	A105_07449T0	Z519_06017T0	83.62	287	27	1	1	267	1	287	2.00E-172	481
2	A105_03297T0	Z519_10145T0	83.63	1362	181	7	2	1357	51	1376	0	2074
2	A105_13435T0	Z519_12196T0	83.63	397	49	3	1	397	1	381	0	629
3	A105_03184T0	Z519_10035T0	83.64	428	39	1	1	397	1	428	0	717
1	A105_04771T0	Z519_02597T0	83.64	275	39	2	1	270	1	274	4.00E-153	431

1	A105_13302T0	Z519_05031T0	83.64	330	41	1	1	317	16	345	1.00E-179	503
1	A105_12880T0	Z519_07483T0	83.65	318	49	1	1	318	1	315	0	529
1	A105_07056T0	Z519_06444T0	83.67	447	67	2	1	442	1	446	0	691
1	A105_07431T0	Z519_06003T0	83.67	98	16	0	1	98	1	98	1.00E-53	164
23	A105_13470T0	Z519_02446T0	83.67	49	8	0	11	59	811	859	1.00E-21	87.4
4	A105_04133T0	Z519_12097T0	83.68	190	29	1	1	190	1	188	5.00E-107	307
13	A105_09819T0	Z519_10401T0	83.68	380	53	2	1	371	1	380	0	639
2	A105_10940T0	Z519_11479T0	83.72	86	14	0	204	289	1	86	2.00E-42	146
7	A105_13402T0	Z519_04229T0	83.72	1155	102	4	1	1155	1	1069	0	1962
1	A105_03970T0	Z519_03269T0	83.74	572	93	0	1	572	1	572	0	968
6	A105_03798T0	Z519_03119T0	83.75	437	22	2	1	437	1	388	0	676
5	A105_07752T0	Z519_07565T0	83.75	160	9	1	1	160	1	143	2.00E-87	268
48	A105_00130T0	Z519_00131T0	83.76	505	58	3	290	794	1	481	0	868
1	A105_04574T0	Z519_02402T0	83.78	222	24	3	1	222	1	210	6.00E-125	355
1	A105_06779T0	Z519_06718T0	83.78	148	24	0	1	148	1	148	9.00E-75	227
8	A105_10288T0	Z519_10954T0	83.78	74	12	0	13	86	86	159	2.00E-36	122
1	A105_11027T0	Z519_06829T0	83.78	74	12	0	421	494	1	74	2.00E-38	140
1	A105_00289T0	Z519_00299T0	83.8	463	42	2	1	444	1	449	0	590
1	A105_07642T0	Z519_06206T0	83.8	469	75	1	1	468	1	469	0	762
1	A105_08309T0	Z519_09524T0	83.8	426	69	0	1	426	1	426	0	736
1	A105_10360T0	Z519_11034T0	83.84	489	70	3	1	481	1	488	0	761
3	A105_00554T0	Z519_00565T0	83.86	316	36	1	1	301	69	384	0	530
1	A105_13338T0	Z519_09331T0	83.87	155	20	1	1	155	1	150	7.00E-88	256
1	A105_04760T0	Z519_02587T0	83.88	546	88	0	1	546	784	1329	0	917
1	A105_05263T0	Z519_08136T0	83.88	490	45	1	1	490	1	456	0	778
1	A105_07633T0	Z519_06195T0	83.89	298	48	0	1	298	1	298	0	508
1	A105_12327T0	Z519_12415T0	83.9	441	71	0	1	441	1	441	0	719
1	A105_03375T0	Z519_10196T0	83.92	485	58	2	1	485	1	465	0	613
1	A105_10358T0	Z519_11031T0	83.93	112	18	0	1	112	59	170	3.00E-63	192
1	A105_12450T0	Z519_12661T0	83.93	112	18	0	1	112	1	112	4.00E-52	165
1	A105_02631T0	Z519_07160T0	83.94	442	47	1	1	418	1	442	0	730
1	A105_03734T0	Z519_03054T0	83.95	81	12	1	78	158	1	80	3.00E-38	132
1	A105_12782T0	Z519_10841T0	83.95	81	13	0	1	81	1	81	2.00E-27	108
1	A105_06252T0	Z519_10760T0	83.97	262	37	1	1	262	1	257	3.00E-155	436
12	A105_09452T0	Z519_01134T0	83.97	624	30	2	1	580	1	598	0	1064

1	A105_02307T0	Z519_11669T0	83.99	406	65	0	1	406	1	406	0	550
1	A105_11110T0	Z519_06912T0	83.99	281	44	1	1	281	1	280	6.00E-175	488
5	A105_00767T0	Z519_00759T0	84	525	49	2	1	490	1	525	0	847
2	A105_08322T0	Z519_09537T0	84	75	12	0	1	75	80	154	5.00E-40	131
6	A105_08360T0	Z519_09573T0	84	175	28	0	212	386	18	192	9.00E-108	318
3	A105_08345T0	Z519_09559T0	84.02	169	27	0	1	169	1	169	4.00E-101	291
2	A105_01489T0	Z519_11780T0	84.03	119	19	0	137	255	17	135	4.00E-61	198
2	A105_06534T0	Z519_09132T0	84.04	683	58	1	1	632	1	683	0	1167
1	A105_09699T0	Z519_10508T0	84.05	740	116	1	1	740	1	738	0	1167
10	A105_07177T0	Z519_06323T0	84.08	1275	136	4	1	1275	1	1208	0	2128
2	A105_00429T0	Z519_00435T0	84.09	44	7	0	238	281	41	84	3.00E-18	79.3
1	A105_08779T0	Z519_03877T0	84.09	572	76	1	1	572	1	557	0	952
1	A105_13323T0	Z519_05010T0	84.1	415	64	2	1	414	1	414	0	605
3	A105_00053T0	Z519_00052T0	84.13	271	42	1	1	271	55	324	1.00E-162	468
1	A105_06725T0	Z519_06784T0	84.13	126	20	0	1	126	1	126	3.00E-72	219
1	A105_07815T0	Z519_07630T0	84.13	271	20	2	1	270	1	249	2.00E-155	436
10	A105_03212T0	Z519_10062T0	84.14	145	23	0	1	145	175	319	8.00E-81	243
1	A105_04775T0	Z519_02600T0	84.14	145	21	1	45	189	350	492	8.00E-41	144
80	A105_04165T0	Z519_03444T0	84.15	347	5	1	1	347	1	297	0	569
2	A105_06285T0	Z519_10737T0	84.15	410	30	1	1	410	95	469	0	699
124	A105_04959T0	Z519_02783T0	84.16	303	46	1	134	434	1	303	0	525
1	A105_07237T0	Z519_05815T0	84.19	873	133	3	1	872	1	869	0	1444
2	A105_10945T0	Z519_11483T0	84.19	329	52	0	1	329	1	329	0	519
1	A105_02797T0	Z519_07328T0	84.21	95	15	0	1	95	1	95	8.00E-51	160
1	A105_09091T0	Z519_05201T0	84.21	38	6	0	1	38	15	52	4.00E-16	68.9
29	A105_03240T0	Z519_10089T0	84.22	374	43	4	1	367	1	365	0	622
4	A105_04573T0	Z519_02400T0	84.23	279	27	2	36	298	90	367	4.00E-162	472
12	A105_12567T0	Z519_05479T0	84.23	260	17	1	1	260	1	236	5.00E-156	439
1	A105_10321T0	Z519_10987T0	84.24	311	49	0	1	311	1	311	0	520
4	A105_09387T0	Z519_01178T0	84.28	229	23	1	1	216	1	229	2.00E-138	390
2	A105_11119T0	Z519_08956T0	84.29	70	11	0	1	70	914	983	5.00E-35	126
2	A105_09724T0	Z519_10484T0	84.3	293	43	2	1	291	1	292	3.00E-159	448
1	A105_03394T0	Z519_10215T0	84.31	274	31	4	1	269	1	267	1.00E-131	377
1	A105_11015T0	Z519_06812T0	84.31	816	120	2	1	816	33	840	0	1367
1	A105_13113T0	Z519_11239T0	84.31	204	15	1	1	187	1	204	1.00E-113	325

2	A105_03402T0	Z519_10223T0	84.33	268	40	1	1	268	41	306	4.00E-155	437
1	A105_02350T0	Z519_11621T0	84.34	396	62	0	1	396	1	396	0	598
1	A105_03610T0	Z519_09738T0	84.34	166	26	0	1	166	1	166	3.00E-96	278
2	A105_08801T0	Z519_03853T0	84.34	281	35	2	1	280	1	273	6.00E-170	474
1	A105_04777T0	Z519_02602T0	84.35	639	61	3	1	631	1	608	0	1071
1	A105_06248T0	Z519_10764T0	84.35	262	41	0	4	265	221	482	2.00E-149	429
1	A105_08062T0	Z519_07897T0	84.35	639	78	2	1	620	1	636	0	1058
2	A105_05409T0	Z519_08283T0	84.36	326	22	1	11	336	75	371	0	560
4	A105_05011T0	Z519_12214T0	84.38	64	10	0	2	65	25	88	2.00E-33	117
1	A105_10660T0	Z519_09847T0	84.38	192	30	0	1	192	1	192	5.00E-108	310
2	A105_06764T0	Z519_06742T0	84.39	269	41	1	1	268	1	269	6.00E-163	456
1	A105_08715T0	Z519_03943T0	84.41	513	45	2	35	547	58	535	0	858
1	A105_08734T0	Z519_03925T0	84.43	501	44	2	1	486	1	482	0	738
90	A105_06968T0	Z519_06528T0	84.44	302	21	2	7	306	1	278	6.00E-179	498
1	A105_08303T0	Z519_09519T0	84.48	116	2	1	1	116	1	100	5.00E-63	189
1	A105_12032T0	Z519_05697T0	84.48	58	9	0	37	94	13	70	7.00E-29	102
2	A105_07913T0	Z519_07751T0	84.51	71	11	0	37	107	19	89	2.00E-40	131
1	A105_10215T0	Z519_10881T0	84.51	381	7	2	1	329	1	381	0	622
1	A105_00182T0	Z519_00184T0	84.55	246	33	1	1	246	1	241	2.00E-148	422
3	A105_01557T0	Z519_01864T0	84.57	564	42	1	1	519	1	564	0	962
19	A105_06756T0	Z519_06750T0	84.58	454	47	1	1	454	66	496	0	780
104	A105_01983T0	Z519_01476T0	84.59	292	37	2	127	411	3	293	5.00E-161	459
2	A105_02949T0	Z519_12077T0	84.59	305	28	2	1	287	14	317	0	522
1	A105_01542T0	Z519_01877T0	84.62	247	34	1	1	243	42	288	2.00E-147	416
32	A105_05565T0	Z519_03678T0	84.63	449	41	3	517	964	1	422	0	738
7	A105_01593T0	Z519_01822T0	84.66	189	12	1	1	172	1	189	1.00E-108	318
11	A105_01735T0	Z519_01702T0	84.67	646	83	4	13	651	49	685	0	1036
14	A105_02102T0	Z519_01378T0	84.68	346	24	1	1	317	1	346	0	566
1	A105_05288T0	Z519_08162T0	84.68	124	19	0	1	124	1	124	1.00E-62	192
1	A105_02950T0	Z519_12076T0	84.71	85	13	0	379	463	1	85	2.00E-44	151
1	A105_11386T0	Z519_02071T0	84.73	203	27	1	2	204	14	212	4.00E-108	312
2	A105_01212T0	Z519_08479T0	84.74	367	29	1	1	340	1	367	0	605
1	A105_10781T0	Z519_12285T0	84.75	177	27	0	1	177	617	793	6.00E-92	286
4	A105_12423T0	Z519_06252T0	84.75	295	34	3	1	285	39	332	6.00E-175	502
1	A105_06262T0	Z519_10751T0	84.77	243	19	1	1	243	1	225	8.00E-145	407

2	A105_12067T0	Z519_12328T0	84.77	151	23	0	164	314	36	186	2.00E-88	265
1	A105_03880T0	Z519_03198T0	84.78	473	48	1	1	473	17	465	0	803
1	A105_08394T0	Z519_05648T0	84.78	322	48	1	1	321	1	322	0	529
2	A105_10338T0	Z519_11006T0	84.78	184	28	0	1	184	1	184	2.00E-98	301
2	A105_01641T0	Z519_01776T0	84.79	572	45	3	1	572	1	530	0	814
52	A105_10389T0	Z519_11264T0	84.82	527	57	2	1	506	246	770	0	916
4	A105_01248T0	Z519_08514T0	84.84	587	30	3	1	548	1	567	0	932
13	A105_07918T0	Z519_07755T0	84.84	277	31	1	35	300	1	277	9.00E-154	462
3	A105_01358T0	Z519_11910T0	84.85	495	75	0	1	495	36	530	0	853
1	A105_02138T0	Z519_01340T0	84.85	66	10	0	1	66	55	120	9.00E-34	113
3	A105_10221T0	Z519_10887T0	84.85	165	25	0	1	165	1	165	2.00E-98	301
1	A105_11289T0	Z519_02151T0	84.85	264	28	1	1	252	1	264	1.00E-128	372
4	A105_11348T0	Z519_02111T0	84.85	680	95	2	1	678	1	674	0	1179
23	A105_08547T0	Z519_04240T0	84.86	403	29	2	1	403	1	371	0	692
2	A105_04181T0	Z519_03459T0	84.88	205	28	1	11	212	1	205	2.00E-101	295
3	A105_12519T0	Z519_02851T0	84.88	86	13	0	21	106	146	231	3.00E-46	151
1	A105_02436T0	Z519_06966T0	84.89	139	18	1	34	172	41	176	8.00E-76	241
1	A105_10451T0	Z519_11328T0	84.89	397	54	1	1	397	1	391	0	681
3	A105_10193T0	Z519_10858T0	84.91	106	16	0	1	106	376	481	4.00E-52	172
2	A105_11592T0	Z519_08703T0	84.92	451	35	3	1	427	1	442	0	579
2	A105_07630T0	Z519_06192T0	84.93	73	11	0	2	74	8	80	9.00E-33	118
1	A105_07688T0	Z519_07511T0	84.93	272	29	1	1	272	1	260	2.00E-115	335
1	A105_04520T0	Z519_02347T0	84.95	671	99	2	1	671	1	669	0	1122
1	A105_09325T0	Z519_01240T0	84.95	897	132	3	2	898	34	927	0	1557
3	A105_13301T0	Z519_05032T0	84.96	1177	152	5	1	1164	1	1165	0	1988
35	A105_06611T0	Z519_09053T0	84.98	313	47	0	115	427	1	313	0	549
1	A105_01872T0	Z519_01592T0	85	400	59	1	1	399	1	400	0	669
4	A105_07580T0	Z519_06143T0	85	420	50	1	1	420	21	427	0	716
22	A105_11258T0	Z519_08819T0	85	280	41	1	2	281	548	826	2.00E-165	483
1	A105_04638T0	Z519_02466T0	85.01	407	61	0	1	407	42	448	0	677
151	A105_10004T0	Z519_04164T0	85.03	521	41	1	1	521	1	484	0	906
1	A105_06606T0	Z519_09058T0	85.05	194	29	0	13	206	1	194	4.00E-118	339
5	A105_06647T0	Z519_09020T0	85.05	107	16	0	143	249	4	110	2.00E-62	194
5	A105_10333T0	Z519_11000T0	85.07	817	78	4	1	814	1	776	0	1387
1	A105_03893T0	Z519_03208T0	85.09	932	138	1	1	932	1	931	0	1575

1	A105_06694T0	Z519_08975T0	85.09	456	55	5	1	445	1	454	0	642
3	A105_08800T0	Z519_03854T0	85.11	235	35	0	117	351	1	235	5.00E-144	410
1	A105_09335T0	Z519_01231T0	85.11	141	19	1	1	141	1	139	7.00E-79	232
1	A105_12411T0	Z519_06266T0	85.11	893	133	0	1	893	1	893	0	1489
1	A105_09252T0	Z519_05361T0	85.12	652	88	5	1	651	1	644	0	1072
1	A105_04303T0	Z519_03583T0	85.13	437	61	1	1	433	1	437	0	701
1	A105_07000T0	Z519_06500T0	85.13	437	46	2	1	437	1	418	0	745
1	A105_13288T0	Z519_12144T0	85.13	511	60	1	1	495	42	552	0	900
4	A105_03124T0	Z519_09978T0	85.14	350	44	3	1	350	17	358	0	579
1	A105_08150T0	Z519_09374T0	85.14	148	22	0	1	148	1	148	3.00E-87	254
6	A105_09925T0	Z519_06738T0	85.14	545	81	0	45	589	1	545	0	905
19	A105_12526T0	Z519_02857T0	85.14	323	14	1	1	289	1	323	0	555
1	A105_08090T0	Z519_04310T0	85.15	431	58	2	1	426	1	430	0	731
1	A105_05294T0	Z519_08168T0	85.16	155	23	0	1	155	1	155	6.00E-77	232
2	A105_06455T0	Z519_09205T0	85.17	1032	136	3	1	1017	1	1030	0	1690
1	A105_07162T0	Z519_06339T0	85.17	344	39	1	1	344	1	332	0	592
7	A105_07288T0	Z519_05866T0	85.17	627	42	4	1	588	1	615	0	1066
2	A105_12247T0	Z519_04505T0	85.17	263	21	1	1	263	1	245	3.00E-153	430
52	A105_02534T0	Z519_07064T0	85.18	371	35	3	1	371	1	351	0	593
2	A105_11702T0	Z519_02976T0	85.18	1019	141	2	1	1013	1	1015	0	1765
1	A105_05458T0	Z519_08335T0	85.21	311	44	1	26	336	26	334	7.00E-180	504
1	A105_07766T0	Z519_07579T0	85.21	284	41	1	1	284	1	283	2.00E-149	422
1	A105_07773T0	Z519_07587T0	85.21	169	25	0	1	169	1	169	6.00E-101	292
45	A105_02016T0	Z519_01441T0	85.22	203	29	1	494	696	1	202	8.00E-116	354
2	A105_08117T0	Z519_09341T0	85.23	88	13	0	34	121	29	116	6.00E-49	155
1	A105_08579T0	Z519_04065T0	85.24	210	31	0	1	210	1	210	7.00E-120	362
1	A105_02728T0	Z519_07262T0	85.25	556	66	1	1	556	1	540	0	939
1	A105_12553T0	Z519_05499T0	85.27	224	16	1	1	224	1	207	1.00E-134	380
1	A105_04377T0	Z519_02204T0	85.28	462	68	0	1	462	1	462	0	799
1	A105_06302T0	Z519_10720T0	85.29	102	9	1	1	102	1	96	5.00E-57	177
20	A105_07321T0	Z519_09296T0	85.29	272	27	5	1	260	1	271	2.00E-158	444
153	A105_00420T0	Z519_00422T0	85.3	558	58	2	1	534	1	558	0	946
1	A105_07931T0	Z519_07769T0	85.31	245	33	2	1	245	1	242	5.00E-136	385
1	A105_09758T0	Z519_10463T0	85.31	245	17	1	1	245	1	226	8.00E-109	316
1	A105_00017T0	Z519_00016T0	85.32	6159	824	16	1	6118	1	6120	0	9537

5	A105_01158T0	Z519_08426T0	85.33	552	40	1	1	511	1	552	0	956
2	A105_01990T0	Z519_01469T0	85.33	300	43	1	77	376	328	626	0	523
2	A105_05160T0	Z519_08049T0	85.33	75	11	0	2	76	480	554	2.00E-36	127
25	A105_04198T0	Z519_03477T0	85.35	471	26	2	1	471	1	428	0	780
1	A105_06682T0	Z519_08986T0	85.35	355	44	2	1	355	1	347	0	594
1	A105_00829T0	Z519_00775T0	85.36	485	70	1	1	485	1	484	0	839
88	A105_01390T0	Z519_11880T0	85.36	567	51	2	1	535	1	567	0	970
1	A105_07302T0	Z519_05877T0	85.36	608	69	3	1	608	1	588	0	918
1	A105_02893T0	Z519_07424T0	85.37	41	4	1	12	50	32	72	9.00E-17	71.6
3	A105_04526T0	Z519_02353T0	85.37	41	6	0	12	52	115	155	6.00E-18	73.9
1	A105_06365T0	Z519_10675T0	85.37	294	30	1	1	281	1	294	3.00E-179	499
28	A105_11356T0	Z519_02102T0	85.37	670	33	2	1	644	1	631	0	1103
1	A105_12541T0	Z519_05507T0	85.37	335	49	0	21	355	101	435	0	593
1	A105_08593T0	Z519_04054T0	85.38	253	26	2	1	242	35	287	5.00E-154	435
1	A105_03653T0	Z519_09781T0	85.4	315	33	4	1	311	1	306	3.00E-106	315
2	A105_04134T0	Z519_03414T0	85.4	137	20	0	1	137	1	137	2.00E-82	244
5	A105_05320T0	Z519_08196T0	85.4	315	26	1	1	315	1	295	0	557
1	A105_08588T0	Z519_04057T0	85.41	329	48	0	1	329	1	329	0	562
4	A105_09282T0	Z519_01283T0	85.41	233	33	1	1	233	611	842	5.00E-136	417
1	A105_00186T0	Z519_00189T0	85.42	96	14	0	1	96	1	96	6.00E-51	164
1	A105_02944T0	Z519_12082T0	85.42	542	72	1	1	535	1	542	0	890
1	A105_12410T0	Z519_06268T0	85.42	96	14	0	1	96	299	394	1.00E-50	169
28	A105_09793T0	Z519_10427T0	85.43	350	23	2	1	322	1	350	0	592
1	A105_03232T0	Z519_10082T0	85.45	488	71	0	1	488	1	488	0	841
1	A105_13181T0	Z519_04341T0	85.45	110	16	0	1	110	1	110	2.00E-53	165
1	A105_02463T0	Z519_06995T0	85.48	613	86	2	1	610	1	613	0	1048
1	A105_04699T0	Z519_02529T0	85.48	186	26	1	1	186	1	185	2.00E-106	307
1	A105_13215T0	Z519_12500T0	85.48	124	18	0	1	124	1	124	1.00E-72	223
1	A105_00892T0	Z519_00840T0	85.49	386	55	1	1	386	1	385	0	551
1	A105_06767T0	Z519_06733T0	85.51	214	31	0	1	214	1	214	6.00E-126	357
2	A105_04569T0	Z519_02396T0	85.52	366	19	1	1	332	1	366	0	629
1	A105_00927T0	Z519_00863T0	85.54	484	68	1	12	495	33	514	0	778
1	A105_10750T0	Z519_09938T0	85.55	609	73	1	1	609	1	594	0	1034
1	A105_08981T0	Z519_05085T0	85.57	291	42	0	68	358	7	297	2.00E-172	485
24	A105_02489T0	Z519_07022T0	85.58	527	60	1	1	527	1	511	0	869

1	A105_06432T0	Z519_10609T0	85.6	125	18	0	1	125	12	136	3.00E-77	227
1	A105_01936T0	Z519_01524T0	85.61	264	38	0	1	264	1	264	2.00E-166	467
56	A105_05916T0	Z519_04818T0	85.61	1369	128	5	1	1318	1	1351	0	2362
1	A105_01427T0	Z519_11841T0	85.62	299	27	1	1	283	1	299	0	518
1	A105_05413T0	Z519_08288T0	85.62	452	41	2	1	428	1	452	0	548
4	A105_02852T0	Z519_07383T0	85.63	355	20	2	1	324	1	355	0	613
1	A105_01713T0	Z519_01713T0	85.64	404	50	3	1	398	1	402	0	666
12	A105_01513T0	Z519_01904T0	85.65	216	31	0	1	216	1	216	3.00E-125	356
52	A105_03017T0	Z519_12013T0	85.65	216	31	0	59	274	1	216	6.00E-135	383
1	A105_12926T0	Z519_11064T0	85.67	586	82	1	1	586	1	584	0	830
1	A105_09775T0	Z519_10447T0	85.68	433	52	1	12	444	12	434	0	734
1	A105_00389T0	Z519_00391T0	85.71	301	43	0	1	301	1	301	0	507
1	A105_00844T0	Z519_00791T0	85.71	308	43	1	1	308	1	307	2.00E-104	310
1	A105_02450T0	Z519_06982T0	85.71	84	12	0	159	242	109	192	6.00E-18	78.6
1	A105_03915T0	Z519_03229T0	85.71	385	55	0	1	385	1	385	0	686
1	A105_04923T0	Z519_02749T0	85.71	259	33	2	18	273	279	536	1.00E-117	350
9	A105_05323T0	Z519_08198T0	85.71	182	26	0	1	182	1	182	6.00E-110	314
1	A105_07729T0	Z519_07544T0	85.71	168	0	1	1	144	1	168	8.00E-97	279
1	A105_07951T0	Z519_07793T0	85.71	294	40	1	1	294	1	292	1.00E-174	488
30	A105_10797T0	Z519_12270T0	85.71	273	18	1	1	273	13	264	4.00E-170	474
4	A105_11121T0	Z519_08956T0	85.71	98	14	0	1	98	348	445	4.00E-51	176
1	A105_12144T0	Z519_09256T0	85.71	98	13	1	1	97	1	98	4.00E-31	107
1	A105_12161T0	Z519_09277T0	85.71	665	89	3	1	665	1	659	0	996
8	A105_01144T0	Z519_10696T0	85.75	821	116	1	1	821	1	820	0	1447
7	A105_01043T0	Z519_00966T0	85.78	408	33	1	1	408	1	383	0	732
1	A105_12626T0	Z519_05414T0	85.79	373	48	1	1	373	1	368	0	661
1	A105_10972T0	Z519_11506T0	85.8	162	23	0	22	183	270	431	1.00E-87	268
30	A105_11120T0	Z519_08956T0	85.8	345	41	2	24	360	505	849	0	595
22	A105_05647T0	Z519_11202T0	85.83	374	21	1	1	374	1	342	0	639
1	A105_01236T0	Z519_08503T0	85.84	551	54	3	1	541	1	537	0	870
1	A105_06026T0	Z519_04709T0	85.84	678	59	2	1	669	1	650	0	1187
2	A105_01821T0	Z519_01643T0	85.86	389	15	1	1	349	1	389	0	642
1	A105_12653T0	Z519_12740T0	85.87	276	37	2	1	275	1	275	2.00E-174	486
137	A105_13152T0	Z519_04371T0	85.87	283	20	1	1	283	1	263	1.00E-179	499
1	A105_03598T0	Z519_09726T0	85.88	170	22	1	1	168	1	170	2.00E-98	299

1	A105_03485T0	Z519_09610T0	85.93	199	28	0	28	226	27	225	5.00E-119	342
2	A105_06929T0	Z519_06571T0	85.93	199	27	1	100	298	1	198	1.00E-111	340
28	A105_07654T0	Z519_06219T0	85.93	327	28	2	1	327	1	309	0	563
6	A105_12153T0	Z519_09266T0	85.93	796	101	7	1	788	1	793	0	1196
42	A105_07031T0	Z519_06471T0	85.94	64	9	0	53	116	2	65	2.00E-32	117
1	A105_11956T0	Z519_05777T0	85.94	313	36	2	1	305	227	539	0	525
1	A105_11104T0	Z519_06904T0	85.97	385	53	1	1	384	1	385	0	671
1	A105_03088T0	Z519_11950T0	85.98	378	32	1	1	357	1	378	0	621
5	A105_09267T0	Z519_05374T0	85.98	271	32	3	376	646	6	270	1.00E-167	483
1	A105_04510T0	Z519_02338T0	85.99	464	18	1	1	417	1	464	0	764
20	A105_05211T0	Z519_08085T0	85.99	621	86	1	1	621	1	620	0	1097
1	A105_09871T0	Z519_10346T0	85.99	207	13	1	1	207	125	315	4.00E-124	357
1	A105_10195T0	Z519_10861T0	85.99	421	59	0	1	421	76	496	0	716
1	A105_04432T0	Z519_02264T0	86	443	51	2	1	442	1	433	0	611
22	A105_01084T0	Z519_08363T0	86.03	136	16	1	10	145	1	133	4.00E-74	229
13	A105_12799T0	Z519_12789T0	86.03	272	27	2	1	262	1	271	5.00E-168	469
1	A105_05697T0	Z519_11153T0	86.05	294	41	0	1	294	134	427	0	528
1	A105_06145T0	Z519_04593T0	86.05	294	27	2	9	302	502	781	2.00E-171	498
1	A105_10276T0	Z519_10943T0	86.06	208	28	1	1	208	1	207	3.00E-129	370
1	A105_13293T0	Z519_12141T0	86.06	287	38	1	1	287	1	285	6.00E-171	478
2	A105_06858T0	Z519_06645T0	86.07	488	16	3	1	456	155	622	0	803
12	A105_02415T0	Z519_06943T0	86.08	158	8	1	1	144	1	158	2.00E-94	273
3	A105_03323T0	Z519_06076T0	86.08	395	54	1	1	394	1	395	0	716
8	A105_03141T0	Z519_09994T0	86.1	259	14	1	1	237	1	259	1.00E-163	456
11	A105_06900T0	Z519_06601T0	86.11	900	120	3	1	899	1	896	0	1532
1	A105_07803T0	Z519_07618T0	86.14	267	31	1	2	268	32	292	4.00E-168	470
1	A105_12609T0	Z519_05432T0	86.14	873	117	1	1	873	1	869	0	1408
1	A105_10237T0	Z519_10903T0	86.15	130	18	0	1	130	1	130	1.00E-60	185
6	A105_04988T0	Z519_12208T0	86.16	477	66	0	1	477	5	481	0	828
1	A105_05668T0	Z519_11181T0	86.16	448	60	2	1	447	1	447	0	753
4	A105_04902T0	Z519_02728T0	86.17	470	65	0	1	470	6	475	0	822
64	A105_08069T0	Z519_04330T0	86.18	246	7	1	1	246	291	509	8.00E-143	413
1	A105_07295T0	Z519_05871T0	86.19	239	33	0	1	239	164	402	9.00E-149	432
57	A105_09184T0	Z519_05296T0	86.19	362	39	2	1	362	1	351	0	600
14	A105_09570T0	Z519_01026T0	86.2	558	77	0	2	559	143	700	0	990

4	A105_00876T0	Z519_00824T0	86.21	145	20	0	1	145	1	145	1.00E-88	258
1	A105_04684T0	Z519_02514T0	86.21	116	16	0	1	116	1	116	4.00E-66	198
1	A105_07898T0	Z519_07729T0	86.21	87	12	0	1	87	1	87	1.00E-50	157
2	A105_10678T0	Z519_09865T0	86.21	203	28	0	813	1015	28	230	9.00E-117	361
148	A105_09467T0	Z519_01119T0	86.22	341	2	1	1	296	1	341	0	578
1	A105_11851T0	Z519_01957T0	86.22	225	30	1	1	224	1	225	5.00E-129	366
1	A105_04746T0	Z519_02576T0	86.23	167	4	2	1	148	1	167	2.00E-85	250
1	A105_06919T0	Z519_06580T0	86.23	523	56	1	1	523	1	507	0	925
25	A105_10356T0	Z519_11028T0	86.23	276	38	0	138	413	1	276	4.00E-154	440
29	A105_00307T0	Z519_00316T0	86.25	291	34	1	1	285	1	291	1.00E-180	505
1	A105_07045T0	Z519_06457T0	86.25	1004	138	0	1	1004	1	1004	0	1720
5	A105_04681T0	Z519_02511T0	86.27	357	45	2	1	357	1	353	0	566
1	A105_06373T0	Z519_10667T0	86.27	568	65	2	1	562	1	561	0	975
2	A105_07139T0	Z519_06362T0	86.27	204	1	1	1	204	1	177	2.00E-104	301
1	A105_07466T0	Z519_06033T0	86.27	233	12	2	1	215	313	543	4.00E-118	350
1	A105_05400T0	Z519_08274T0	86.28	554	73	3	1	554	177	727	0	935
1	A105_09559T0	Z519_01037T0	86.29	474	50	4	1	466	1	467	0	717
1	A105_10399T0	Z519_11276T0	86.29	474	45	2	1	454	1	474	0	748
1	A105_06027T0	Z519_04708T0	86.3	73	10	0	1	73	315	387	2.00E-38	132
1	A105_10799T0	Z519_12268T0	86.31	431	34	4	1	413	1	424	0	550
1	A105_00153T0	Z519_00153T0	86.32	541	54	3	10	532	4	542	0	907
1	A105_01313T0	Z519_08577T0	86.32	351	45	1	3	350	25	375	0	549
183	A105_08416T0	Z519_05634T0	86.32	307	1	2	1	266	1	307	0	516
1	A105_01733T0	Z519_01704T0	86.33	461	47	1	2	462	10	454	0	820
89	A105_08351T0	Z519_09565T0	86.34	344	13	1	34	343	1	344	0	580
5	A105_08475T0	Z519_05577T0	86.34	527	22	1	1	477	1	527	0	916
2	A105_13115T0	Z519_11241T0	86.34	820	67	3	1	820	1	775	0	1283
1	A105_00188T0	Z519_00191T0	86.35	1348	178	2	1	1348	1	1342	0	2254
1	A105_04772T0	Z519_02598T0	86.36	132	18	0	1	132	1	132	5.00E-56	173
1	A105_08666T0	Z519_03992T0	86.36	198	23	2	1	195	61	257	1.00E-112	325
2	A105_12982T0	Z519_04399T0	86.36	330	28	2	1	330	1	313	0	553
1	A105_05456T0	Z519_08333T0	86.37	433	48	2	1	422	143	575	0	580
1	A105_11231T0	Z519_08849T0	86.37	719	78	3	1	700	112	829	0	1186
1	A105_06359T0	Z519_10681T0	86.39	147	20	0	1	147	69	215	1.00E-87	257
1	A105_04126T0	Z519_03404T0	86.4	397	46	3	1	397	1	389	0	578

1	A105_09036T0	Z519_05141T0	86.41	368	50	0	1	368	1	368	0	610
5	A105_13051T0	Z519_12114T0	86.42	81	10	1	257	336	1	81	2.00E-41	144
1	A105_02586T0	Z519_07116T0	86.43	258	35	0	1	258	1	258	1.00E-165	462
1	A105_01301T0	Z519_08565T0	86.46	1226	152	6	1	1218	1	1220	0	2096
1	A105_10275T0	Z519_10942T0	86.47	303	25	1	1	287	1	303	0	507
3	A105_00238T0	Z519_00237T0	86.48	636	86	0	1	636	1	636	0	1081
1	A105_11203T0	Z519_08880T0	86.48	429	57	1	1	429	1	428	0	706
1	A105_01980T0	Z519_01480T0	86.49	111	13	2	4	113	332	441	1.00E-62	201
2	A105_03585T0	Z519_09711T0	86.49	111	15	0	1	111	402	512	1.00E-63	206
1	A105_05069T0	Z519_07959T0	86.49	407	33	2	13	397	13	419	0	663
1	A105_07619T0	Z519_06182T0	86.49	496	64	1	20	515	1	493	0	821
3	A105_09183T0	Z519_07745T0	86.49	185	25	0	1	185	101	285	9.00E-116	333
1	A105_09662T0	Z519_10542T0	86.49	444	60	0	1	444	1	444	0	785
1	A105_02095T0	Z519_01385T0	86.51	289	39	0	1	289	384	672	0	529
23	A105_06072T0	Z519_04671T0	86.51	630	26	2	1	630	1	571	0	1095
1	A105_05931T0	Z519_04803T0	86.52	1276	171	1	1	1276	1	1275	0	2219
42	A105_09007T0	Z519_05112T0	86.52	230	31	0	36	265	58	287	2.00E-140	419
1	A105_09695T0	Z519_10512T0	86.52	319	39	1	1	319	155	469	0	541
1	A105_10396T0	Z519_11272T0	86.53	193	26	0	1	193	1	193	8.00E-113	324
6	A105_10702T0	Z519_09887T0	86.53	334	40	2	163	493	1	332	0	577
2	A105_06043T0	Z519_04696T0	86.54	104	13	1	1	104	1	103	2.00E-56	176
1	A105_06928T0	Z519_06572T0	86.54	364	48	1	1	364	1	363	0	649
25	A105_09175T0	Z519_05288T0	86.55	171	20	1	177	347	1	168	5.00E-101	298
2	A105_04378T0	Z519_02205T0	86.56	253	5	1	1	253	1	224	8.00E-155	433
1	A105_08616T0	Z519_04033T0	86.56	387	32	5	1	386	1	368	0	624
1	A105_11703T0	Z519_02975T0	86.56	253	34	0	1	253	8	260	4.00E-151	425
157	A105_08281T0	Z519_09502T0	86.57	268	24	2	1	267	1	257	2.00E-163	456
2	A105_08374T0	Z519_05670T0	86.57	201	27	0	1	201	1	201	6.00E-127	359
1	A105_10212T0	Z519_10878T0	86.57	648	82	3	1	646	89	733	0	1148
1	A105_05062T0	Z519_07952T0	86.58	149	20	0	1	149	163	311	1.00E-85	256
1	A105_05296T0	Z519_08170T0	86.58	231	26	2	1	231	1	226	7.00E-111	320
1	A105_07461T0	Z519_06028T0	86.58	544	52	2	1	523	84	627	0	934
1	A105_04615T0	Z519_02442T0	86.59	1432	138	4	17	1410	354	1769	0	2040
1	A105_10479T0	Z519_11355T0	86.6	97	13	0	49	145	1	97	5.00E-54	167
2	A105_01373T0	Z519_11896T0	86.61	336	45	0	1	336	1	336	0	597

1	A105_05582T0	Z519_03694T0	86.61	336	42	1	1	336	238	570	0	527
1	A105_09188T0	Z519_05301T0	86.61	224	30	0	4	227	1	224	2.00E-133	378
1	A105_02564T0	Z519_07094T0	86.62	269	28	2	1	269	1	261	2.00E-149	422
7	A105_03988T0	Z519_03286T0	86.62	411	30	2	1	386	1	411	0	721
2	A105_12629T0	Z519_05408T0	86.63	329	44	0	1	329	26	354	0	583
28	A105_00666T0	Z519_00661T0	86.64	262	12	1	1	239	116	377	5.00E-166	467
159	A105_06269T0	Z519_10744T0	86.65	337	34	2	1	337	1	326	0	508
138	A105_08922T0	Z519_03729T0	86.65	412	37	1	102	513	1	394	0	725
33	A105_05020T0	Z519_07907T0	86.66	577	61	1	77	637	685	1261	0	999
1	A105_04610T0	Z519_02438T0	86.67	120	8	1	1	112	1	120	4.00E-64	192
1	A105_12804T0	Z519_12785T0	86.67	45	6	0	17	61	198	242	2.00E-20	81.3
4	A105_04043T0	Z519_03325T0	86.68	368	48	1	176	543	56	422	0	625
17	A105_06738T0	Z519_06772T0	86.68	563	44	1	1	563	1	532	0	984
23	A105_12340T0	Z519_12426T0	86.68	443	59	0	63	505	36	478	0	781
40	A105_02424T0	Z519_06952T0	86.69	676	89	1	1	675	1	676	0	1187
3	A105_10194T0	Z519_10860T0	86.7	451	60	0	1	451	1	451	0	812
1	A105_00084T0	Z519_00083T0	86.71	286	10	1	1	258	1	286	1.00E-180	501
1	A105_03029T0	Z519_12006T0	86.71	414	47	2	1	406	1	414	0	721
2	A105_04575T0	Z519_02403T0	86.71	474	47	2	1	470	1	462	0	811
2	A105_11667T0	Z519_08629T0	86.71	301	40	0	7	307	1	301	0	550
1	A105_01214T0	Z519_08481T0	86.72	128	17	0	146	273	1	128	4.00E-78	235
34	A105_02048T0	Z519_01408T0	86.72	625	77	2	19	637	2	626	0	1112
1	A105_04597T0	Z519_02425T0	86.72	354	35	4	1	344	1	352	0	577
6	A105_04989T0	Z519_12209T0	86.72	580	75	1	1	580	1	578	0	1018
1	A105_09875T0	Z519_10343T0	86.72	384	38	2	1	382	1	373	0	585
1	A105_12737T0	Z519_10797T0	86.72	610	22	4	1	554	1	607	0	773
1	A105_08336T0	Z519_09550T0	86.73	1093	141	2	1	1093	1	1089	0	1815
1	A105_13193T0	Z519_12478T0	86.73	226	30	0	1	226	1	226	2.00E-140	395
1	A105_01065T0	Z519_00987T0	86.74	445	59	0	1	445	1	445	0	773
1	A105_08903T0	Z519_03750T0	86.75	302	24	3	45	330	6	307	0	511
50	A105_11006T0	Z519_06803T0	86.75	483	61	1	134	616	1	480	0	870
1	A105_12099T0	Z519_12360T0	86.78	121	14	1	1	121	23	141	8.00E-54	167
11	A105_07810T0	Z519_07625T0	86.79	742	78	8	1	739	1	725	0	1119
6	A105_12233T0	Z519_04520T0	86.79	106	14	0	9	114	76	181	4.00E-56	186
1	A105_01022T0	Z519_00946T0	86.8	553	70	2	1	553	1	550	0	971

1	A105_07428T0	Z519_06000T0	86.8	409	48	1	1	409	1	403	0	689
1	A105_08536T0	Z519_05516T0	86.8	356	47	0	1	356	1	356	0	616
5	A105_12176T0	Z519_09293T0	86.8	341	45	0	1	341	1	341	0	604
1	A105_01623T0	Z519_01794T0	86.82	971	79	6	1	962	1	931	0	1517
14	A105_03753T0	Z519_03077T0	86.82	592	56	4	36	627	16	585	0	923
8	A105_02206T0	Z519_11769T0	86.83	167	22	0	82	248	1	167	3.00E-95	291
1	A105_05130T0	Z519_08019T0	86.83	167	21	1	1	167	288	453	9.00E-101	300
1	A105_09449T0	Z519_01137T0	86.83	167	20	2	15	180	57	222	2.00E-95	281
1	A105_11059T0	Z519_06860T0	86.84	661	78	4	1	658	1	655	0	1103
2	A105_00475T0	Z519_00482T0	86.85	517	39	1	131	647	1	488	0	931
34	A105_06655T0	Z519_09013T0	86.85	502	53	2	1	500	1	491	0	793
1	A105_08419T0	Z519_05631T0	86.85	289	17	3	69	355	1	270	0	514
74	A105_04860T0	Z519_02684T0	86.86	837	101	5	1	831	1	834	0	1416
1	A105_05155T0	Z519_08046T0	86.87	198	25	1	1	197	5	202	5.00E-90	268
4	A105_06971T0	Z519_06525T0	86.87	297	26	1	1	297	1	284	0	514
7	A105_04736T0	Z519_02565T0	86.88	564	59	2	1	549	1	564	0	1001
1	A105_05552T0	Z519_03667T0	86.88	442	40	1	1	442	1	424	0	696
1	A105_08219T0	Z519_09441T0	86.88	320	41	1	1	319	1	320	0	541
1	A105_00989T0	Z519_00916T0	86.89	61	8	0	1	61	1	61	4.00E-34	117
46	A105_01178T0	Z519_08446T0	86.89	473	36	1	222	694	126	572	0	848
12	A105_05416T0	Z519_08291T0	86.89	511	46	2	1	511	1	490	0	819
19	A105_10758T0	Z519_09947T0	86.89	244	32	0	329	572	11	254	1.00E-145	435
1	A105_07241T0	Z519_05819T0	86.9	733	74	3	1	717	1	727	0	1218
6	A105_09033T0	Z519_05138T0	86.9	481	63	0	1	481	1	481	0	840
2	A105_11256T0	Z519_08823T0	86.9	84	11	0	23	106	2	85	5.00E-45	144
1	A105_03599T0	Z519_09726T0	86.91	191	25	0	1	191	374	564	6.00E-114	338
1	A105_07149T0	Z519_06352T0	86.91	359	45	2	1	358	1	358	0	583
1	A105_00032T0	Z519_00032T0	86.92	237	31	0	8	244	1	237	7.00E-149	418
1	A105_05452T0	Z519_08329T0	86.92	214	28	0	3	216	80	293	4.00E-132	376
90	A105_05652T0	Z519_11197T0	86.92	214	27	1	90	303	140	352	1.00E-131	382
13	A105_06683T0	Z519_08985T0	86.92	107	14	0	55	161	53	159	2.00E-62	194
129	A105_04828T0	Z519_02653T0	86.93	352	42	1	111	462	14	361	0	618
1	A105_11820T0	Z519_01927T0	86.93	153	20	0	1	153	1	153	1.00E-94	273
1	A105_13314T0	Z519_05019T0	86.93	153	12	2	26	176	1	147	6.00E-93	270
1	A105_02034T0	Z519_01422T0	86.94	268	34	1	1	268	91	357	5.00E-165	464

2	A105_02274T0	Z519_11703T0	86.94	268	34	1	215	482	1	267	2.00E-147	426
102	A105_08189T0	Z519_09413T0	86.95	636	65	3	1	628	1	626	0	1133
1	A105_10170T0	Z519_12683T0	86.98	169	10	1	1	169	1	157	6.00E-97	280
10	A105_00653T0	Z519_00652T0	87.01	254	25	2	1	254	1	246	4.00E-143	404
1	A105_07563T0	Z519_06127T0	87.01	154	15	1	1	149	1	154	6.00E-91	264
7	A105_12476T0	Z519_12642T0	87.01	177	22	1	1	176	1	177	2.00E-105	309
15	A105_13295T0	Z519_05037T0	87.01	154	20	0	1	154	1	154	6.00E-97	283
2	A105_13316T0	Z519_05017T0	87.01	231	30	0	1	231	250	480	6.00E-145	417
1	A105_06802T0	Z519_06701T0	87.02	285	33	2	1	285	1	281	7.00E-164	459
1	A105_10450T0	Z519_11327T0	87.03	632	65	1	1	632	1	615	0	1145
1	A105_01661T0	Z519_01755T0	87.04	540	66	1	1	540	1	536	0	835
1	A105_02044T0	Z519_01412T0	87.04	494	56	3	25	511	4	496	0	814
1	A105_03249T0	Z519_10098T0	87.04	162	18	1	3	161	4	165	5.00E-98	283
1	A105_07809T0	Z519_07624T0	87.04	54	7	0	1	54	76	129	5.00E-27	97.4
5	A105_10422T0	Z519_11298T0	87.04	301	30	2	1	292	1	301	1.00E-152	433
1	A105_12360T0	Z519_12444T0	87.04	162	20	1	1	161	1	162	1.00E-64	197
1	A105_13092T0	Z519_11223T0	87.04	108	14	0	1	108	181	288	2.00E-32	116
1	A105_02025T0	Z519_01431T0	87.05	440	57	0	1	440	1	440	0	774
46	A105_10807T0	Z519_12261T0	87.06	572	26	2	1	524	1	572	0	972
2	A105_04914T0	Z519_02741T0	87.07	665	86	0	1	665	1	665	0	1151
1	A105_09434T0	Z519_01152T0	87.07	433	52	2	70	501	1	430	0	763
1	A105_12363T0	Z519_12447T0	87.08	209	27	0	1	209	94	302	8.00E-115	333
18	A105_00039T0	Z519_00039T0	87.09	395	35	1	137	531	1	379	0	710
9	A105_01394T0	Z519_11875T0	87.09	302	23	1	1	286	1	302	0	537
3	A105_06473T0	Z519_09190T0	87.09	333	38	1	3	330	378	710	0	607
1	A105_13388T0	Z519_12223T0	87.11	349	45	0	1	349	1	349	0	614
2	A105_02572T0	Z519_07102T0	87.12	489	61	1	1	489	1	487	0	803
1	A105_03827T0	Z519_03145T0	87.12	458	59	0	1	458	1	458	0	766
1	A105_02903T0	Z519_12774T0	87.13	202	25	1	1	202	1	201	2.00E-130	368
1	A105_05595T0	Z519_03704T0	87.13	474	43	1	12	467	109	582	0	795
1	A105_10520T0	Z519_12624T0	87.13	1344	167	2	1	1342	1	1340	0	2068
2	A105_10852T0	Z519_09979T0	87.13	171	8	1	1	157	1	171	3.00E-100	288
1	A105_12384T0	Z519_12468T0	87.13	101	13	0	1	101	1	101	6.00E-62	186
1	A105_03153T0	Z519_10005T0	87.14	210	27	0	103	312	62	271	2.00E-137	393
1	A105_07555T0	Z519_06118T0	87.14	552	60	3	1	544	1	549	0	708

88	A105_12598T0	Z519_05446T0	87.15	397	25	1	1	371	1	397	0	703
1	A105_06050T0	Z519_04689T0	87.16	109	10	1	1	105	1	109	5.00E-51	161
9	A105_13384T0	Z519_12229T0	87.16	218	28	0	253	470	1	218	2.00E-132	385
1	A105_04806T0	Z519_02632T0	87.17	382	46	1	1	382	1	379	0	664
21	A105_09547T0	Z519_01049T0	87.18	195	25	0	1	195	60	254	2.00E-121	347
3	A105_00340T0	Z519_00345T0	87.19	398	51	0	1	398	32	429	0	664
1	A105_02972T0	Z519_12057T0	87.19	359	46	0	1	359	1	359	0	566
47	A105_04831T0	Z519_02655T0	87.19	367	46	1	187	552	1	367	0	649
1	A105_01186T0	Z519_08454T0	87.2	336	39	1	1	336	1	332	3.00E-170	480
1	A105_08702T0	Z519_03957T0	87.2	461	59	0	1	461	261	721	0	677
2	A105_12308T0	Z519_07902T0	87.21	391	49	1	1	391	1	390	0	684
1	A105_12762T0	Z519_10821T0	87.21	383	49	0	16	398	16	398	1.00E-177	504
1	A105_00593T0	Z519_00603T0	87.22	227	29	0	1	227	1	227	3.00E-144	405
4	A105_11406T0	Z519_02053T0	87.22	407	52	0	81	487	1	407	0	724
2	A105_12956T0	Z519_11094T0	87.23	47	6	0	82	128	1	47	4.00E-23	94
4	A105_13405T0	Z519_04236T0	87.23	869	107	3	1	865	1	869	0	1567
2	A105_08004T0	Z519_07840T0	87.25	408	52	0	22	429	2	409	0	736
1	A105_01791T0	Z519_01673T0	87.26	314	27	1	1	301	1	314	3.00E-179	500
1	A105_02276T0	Z519_11700T0	87.26	259	32	1	1	258	1	259	8.00E-158	442
2	A105_03431T0	Z519_10253T0	87.26	463	41	2	1	463	1	445	0	725
1	A105_08128T0	Z519_09351T0	87.26	369	44	3	1	369	1	366	0	570
7	A105_10349T0	Z519_11020T0	87.27	322	10	1	1	291	1	322	0	566
3	A105_11214T0	Z519_08868T0	87.27	275	33	2	257	530	1	274	2.00E-158	455
16	A105_11476T0	Z519_08757T0	87.27	55	7	0	1	55	53	107	3.00E-26	95.9
1	A105_13047T0	Z519_08830T0	87.27	110	13	1	1	109	519	628	2.00E-55	184
5	A105_08731T0	Z519_03929T0	87.28	857	57	2	41	845	353	1209	0	1505
1	A105_00402T0	Z519_00404T0	87.29	181	23	0	74	254	135	315	1.00E-115	340
2	A105_08493T0	Z519_05558T0	87.29	299	38	0	1	299	1	299	0	508
1	A105_10030T0	Z519_04137T0	87.31	394	38	2	1	387	1	389	0	637
4	A105_02955T0	Z519_12073T0	87.32	560	43	1	1	560	1	532	0	985
1	A105_11780T0	Z519_02901T0	87.32	142	18	0	1	142	1	142	4.00E-87	261
1	A105_00886T0	Z519_00835T0	87.33	150	19	0	1	150	1	150	3.00E-88	257
1	A105_06254T0	Z519_10758T0	87.33	371	44	1	1	371	1	368	0	632
70	A105_04362T0	Z519_02189T0	87.34	79	10	0	82	160	226	304	4.00E-41	142
4	A105_00300T0	Z519_00310T0	87.35	506	50	2	1	506	1	492	0	845

1	A105_01067T0	Z519_00989T0	87.35	1375	170	3	1	1373	1	1373	0	2357
1	A105_01613T0	Z519_01804T0	87.36	815	102	1	1	815	1	814	0	1392
1	A105_06066T0	Z519_04674T0	87.37	95	9	1	1	95	1	92	1.00E-36	121
4	A105_05359T0	Z519_08234T0	87.38	206	18	1	1	198	1	206	5.00E-123	356
2	A105_06499T0	Z519_09164T0	87.41	270	29	1	1	270	2	266	2.00E-162	455
1	A105_07207T0	Z519_06293T0	87.42	159	20	0	1	159	1	159	1.00E-89	261
1	A105_04400T0	Z519_02231T0	87.43	668	66	1	1	650	1	668	0	1180
1	A105_05276T0	Z519_08149T0	87.43	175	22	0	2	176	8	182	4.00E-107	317
1	A105_09065T0	Z519_05176T0	87.43	931	94	7	1	916	1	923	0	1379
142	A105_10050T0	Z519_04116T0	87.43	525	25	1	4	487	10	534	0	918
1	A105_03625T0	Z519_09753T0	87.44	223	27	1	1	223	1	222	6.00E-128	363
1	A105_12479T0	Z519_02813T0	87.47	391	37	4	1	385	1	385	0	574
3	A105_01190T0	Z519_08458T0	87.5	48	6	0	1	48	357	404	3.00E-18	82.8
3	A105_02174T0	Z519_01304T0	87.5	472	10	3	1	424	1	471	0	801
1	A105_02406T0	Z519_06934T0	87.5	392	49	0	53	444	1	392	0	684
1	A105_04731T0	Z519_02560T0	87.5	928	113	2	1	926	1	927	0	1582
1	A105_05662T0	Z519_11186T0	87.5	72	9	0	1	72	1	72	8.00E-41	130
56	A105_10617T0	Z519_11100T0	87.5	344	43	0	1	344	1	344	0	613
1	A105_10645T0	Z519_09833T0	87.5	672	80	2	1	672	1	668	0	1067
1	A105_12719T0	Z519_09794T0	87.5	48	6	0	34	81	3	50	6.00E-24	88.6
8	A105_13453T0	Z519_12702T0	87.5	72	9	0	1	72	32	103	1.00E-41	135
3	A105_11074T0	Z519_06874T0	87.51	961	77	3	1	918	31	991	0	1725
1	A105_02835T0	Z519_07366T0	87.54	578	71	1	1	578	1	577	0	965
1	A105_01188T0	Z519_08456T0	87.56	225	28	0	1	225	1	225	3.00E-145	407
1	A105_02706T0	Z519_07243T0	87.56	418	47	1	1	418	1	413	0	711
1	A105_04436T0	Z519_02268T0	87.57	861	101	2	1	861	145	999	0	1510
1	A105_07175T0	Z519_06328T0	87.57	169	20	1	1	168	66	234	3.00E-105	304
2	A105_10045T0	Z519_04121T0	87.57	362	45	0	8	369	1	362	0	661
144	A105_11145T0	Z519_08930T0	87.57	338	13	1	1	338	1	309	0	597
1	A105_06686T0	Z519_08983T0	87.58	330	40	1	1	329	56	385	3.00E-178	502
1	A105_07161T0	Z519_06340T0	87.58	314	39	0	1	314	1	314	0	550
1	A105_05889T0	Z519_04845T0	87.59	137	17	0	10	146	23	159	1.00E-84	249
1	A105_06310T0	Z519_10714T0	87.59	983	116	3	1	981	1	979	0	1548
1	A105_01054T0	Z519_00977T0	87.6	597	73	1	1	596	1	597	0	999
2	A105_04086T0	Z519_03361T0	87.6	379	47	0	1	379	986	1364	0	672

90	A105_13241T0	Z519_12526T0	87.6	516	20	1	1	472	1	516	0	917
1	A105_05465T0	Z519_08342T0	87.61	113	13	1	13	124	13	125	4.00E-51	167
30	A105_07411T0	Z519_05982T0	87.61	936	112	3	1	936	156	1087	0	1695
1	A105_08434T0	Z519_05617T0	87.61	226	27	1	1	225	1	226	2.00E-126	360
1	A105_01805T0	Z519_01659T0	87.62	412	51	0	1	412	1	412	0	716
1	A105_07238T0	Z519_05816T0	87.62	606	67	3	1	605	1	599	0	965
1	A105_07664T0	Z519_06229T0	87.62	646	80	0	8	653	489	1134	0	865
56	A105_10440T0	Z519_11316T0	87.65	567	34	2	1	533	1	565	0	1003
1	A105_02168T0	Z519_01313T0	87.66	608	71	2	1	607	1	605	0	1097
1	A105_10307T0	Z519_10972T0	87.66	235	29	0	1	235	1	235	1.00E-132	376
2	A105_02777T0	Z519_07309T0	87.68	138	17	0	1	138	306	443	4.00E-76	241
66	A105_06722T0	Z519_06787T0	87.68	406	5	2	1	376	1	391	0	673
1	A105_08115T0	Z519_09339T0	87.68	755	89	1	1	751	1	755	0	1249
2	A105_09698T0	Z519_10509T0	87.68	609	73	2	416	1024	1	607	0	1094
62	A105_01900T0	Z519_01566T0	87.69	902	91	4	1	892	1	892	0	1552
5	A105_09494T0	Z519_01089T0	87.69	268	29	2	30	297	3	266	6.00E-161	467
12	A105_10018T0	Z519_04152T0	87.69	642	58	3	43	683	31	652	0	1147
23	A105_13175T0	Z519_04349T0	87.69	642	43	1	439	1044	14	655	0	1133
2	A105_13424T0	Z519_12307T0	87.69	65	8	0	53	117	850	914	9.00E-33	124
1	A105_03151T0	Z519_10003T0	87.7	122	15	0	1	122	1	122	9.00E-75	222
3	A105_12125T0	Z519_12384T0	87.7	187	23	0	95	281	167	353	3.00E-111	337
6	A105_09883T0	Z519_10335T0	87.71	423	33	1	1	423	1	404	0	755
1	A105_00358T0	Z519_00356T0	87.72	741	88	1	1	738	1	741	0	1215
1	A105_12318T0	Z519_12405T0	87.72	513	63	0	1	513	52	564	0	842
1	A105_10391T0	Z519_11267T0	87.73	163	20	0	1	163	1	163	2.00E-87	256
1	A105_01788T0	Z519_01676T0	87.74	212	26	0	1	212	1	212	6.00E-135	380
1	A105_07796T0	Z519_07611T0	87.74	318	13	2	1	318	1	292	0	560
1	A105_11871T0	Z519_01975T0	87.74	261	32	0	1	261	25	285	7.00E-171	476
1	A105_05831T0	Z519_04901T0	87.75	612	75	0	1	612	9	620	0	1116
1	A105_12825T0	Z519_12545T0	87.76	425	43	1	1	416	1	425	0	681
1	A105_05144T0	Z519_08034T0	87.77	1186	143	2	1	1185	1	1185	0	2039
38	A105_05974T0	Z519_04760T0	87.77	458	56	0	1	458	1	458	0	758
5	A105_08119T0	Z519_09343T0	87.77	564	69	0	1	564	1	564	0	1009
2	A105_02557T0	Z519_07087T0	87.78	450	52	1	31	480	31	477	0	808
1	A105_05187T0	Z519_08076T0	87.78	499	60	1	1	498	1	499	0	904

1	A105_05963T0	Z519_04772T0	87.78	409	50	0	1	409	1	409	0	726
1	A105_03508T0	Z519_09632T0	87.79	213	21	1	1	213	1	208	1.00E-97	287
1	A105_02432T0	Z519_06962T0	87.8	377	42	3	1	376	1	374	0	618
3	A105_02795T0	Z519_07327T0	87.8	295	36	0	1	295	1	295	1.00E-175	490
15	A105_07807T0	Z519_07622T0	87.8	410	38	2	1	408	8	407	0	733
11	A105_13105T0	Z519_11232T0	87.81	443	46	1	1	435	1	443	0	761
2	A105_10724T0	Z519_09912T0	87.82	509	46	5	1	502	1	500	0	852
1	A105_09363T0	Z519_01205T0	87.83	115	14	0	1	115	1	115	1.00E-67	207
1	A105_12689T0	Z519_09819T0	87.83	419	51	0	1	419	1	419	0	763
2	A105_02083T0	Z519_01396T0	87.84	625	73	1	1	625	1	622	0	1112
1	A105_03130T0	Z519_09983T0	87.84	74	9	0	65	138	1	74	3.00E-43	139
1	A105_02591T0	Z519_07121T0	87.85	609	70	2	1	606	1	608	0	886
1	A105_06999T0	Z519_06501T0	87.85	214	25	1	1	213	284	497	7.00E-126	367
2	A105_12122T0	Z519_12382T0	87.85	181	22	0	1	181	4	184	1.00E-105	334
11	A105_04898T0	Z519_02722T0	87.86	659	44	2	1	658	17	640	0	1184
1	A105_12998T0	Z519_04414T0	87.86	206	25	0	1	206	1	206	3.00E-129	365
2	A105_12542T0	Z519_05506T0	87.87	445	49	3	1	444	1	441	0	750
2	A105_03233T0	Z519_10083T0	87.88	396	21	2	1	370	1	395	0	701
1	A105_05093T0	Z519_07983T0	87.88	132	3	1	1	132	174	292	3.00E-72	220
1	A105_00363T0	Z519_00362T0	87.89	322	33	1	1	322	1	316	2.00E-156	443
45	A105_07134T0	Z519_06367T0	87.89	190	23	0	1	190	249	438	1.00E-118	347
1	A105_07264T0	Z519_05843T0	87.89	1296	132	2	1	1296	65	1335	0	2310
2	A105_01118T0	Z519_08392T0	87.9	372	41	1	1	372	73	440	0	676
153	A105_09389T0	Z519_01176T0	87.9	124	15	0	114	237	1	124	8.00E-69	215
1	A105_03405T0	Z519_10226T0	87.92	919	110	1	1	918	1	919	0	1578
8	A105_04695T0	Z519_02524T0	87.92	298	36	0	1	298	133	430	0	535
1	A105_05090T0	Z519_07980T0	87.92	265	31	1	20	283	20	284	5.00E-167	468
1	A105_01484T0	Z519_11785T0	87.93	671	59	2	1	656	1	664	0	1206
24	A105_08130T0	Z519_09352T0	87.93	497	36	1	210	706	1	473	0	850
4	A105_09746T0	Z519_10475T0	87.93	464	50	3	1	464	1	458	0	746
1	A105_03406T0	Z519_10227T0	87.95	224	27	0	1	224	1	224	3.00E-147	413
1	A105_05105T0	Z519_07995T0	87.95	365	2	1	1	365	1	323	0	637
1	A105_09654T0	Z519_10550T0	87.95	249	30	0	1	249	1	249	2.00E-162	453
9	A105_10519T0	Z519_12625T0	87.95	415	49	1	69	483	1	414	0	732
2	A105_10618T0	Z519_11099T0	87.95	415	47	2	1	412	1	415	0	751

2	A105_12124T0	Z519_12384T0	87.95	166	20	0	16	181	1	166	1.00E-106	313
1	A105_12756T0	Z519_10814T0	87.95	672	75	2	1	667	1	671	0	1122
1	A105_03603T0	Z519_09731T0	87.97	399	48	0	1	399	281	679	0	721
1	A105_07537T0	Z519_06098T0	87.97	399	42	2	1	393	1	399	1.00E-174	496
1	A105_12291T0	Z519_04463T0	87.99	283	32	1	1	281	1	283	5.00E-173	485
1	A105_04856T0	Z519_02680T0	88	125	15	0	1	125	1	125	3.00E-79	232
3	A105_06075T0	Z519_04667T0	88	125	15	0	1	125	18	142	4.00E-69	218
1	A105_09125T0	Z519_05236T0	88	350	40	2	1	349	1	349	0	539
2	A105_10217T0	Z519_10883T0	88	842	85	3	22	848	9	849	0	1244
2	A105_09242T0	Z519_05352T0	88.02	484	57	1	1	483	1	484	0	785
1	A105_13072T0	Z519_12136T0	88.02	409	49	0	1	409	1	409	0	725
37	A105_01564T0	Z519_01857T0	88.03	610	73	0	1	610	1	610	0	1111
4	A105_01792T0	Z519_01672T0	88.03	117	12	1	1	117	1	115	2.00E-69	207
2	A105_03938T0	Z519_03235T0	88.03	234	27	1	1	234	1	233	1.00E-150	422
1	A105_03099T0	Z519_11939T0	88.04	276	33	0	1	276	1	276	0	504
41	A105_10397T0	Z519_11273T0	88.04	485	33	3	1	477	1	468	0	847
1	A105_13344T0	Z519_09325T0	88.04	301	36	0	1	301	1	301	0	525
40	A105_00124T0	Z519_00125T0	88.06	536	23	1	1	536	1	495	0	934
9	A105_00969T0	Z519_00906T0	88.06	561	41	1	1	561	304	838	0	984
1	A105_02841T0	Z519_07371T0	88.06	134	16	0	1	134	1	134	1.00E-76	226
10	A105_10620T0	Z519_11097T0	88.06	402	47	1	1	402	79	479	0	732
1	A105_06493T0	Z519_09170T0	88.07	243	29	0	1	243	1	243	6.00E-158	442
1	A105_01508T0	Z519_01910T0	88.09	529	51	3	1	529	1	517	0	875
6	A105_02364T0	Z519_11607T0	88.09	613	70	2	1	612	19	629	0	1090
3	A105_02234T0	Z519_11742T0	88.1	622	73	1	1	622	1	621	0	1123
1	A105_02933T0	Z519_12745T0	88.1	269	32	0	1	269	1	269	9.00E-175	486
6	A105_05120T0	Z519_08011T0	88.1	126	15	0	72	197	1	126	6.00E-68	216
8	A105_11088T0	Z519_06887T0	88.1	294	25	1	236	529	1	284	7.00E-180	510
1	A105_08081T0	Z519_04319T0	88.11	227	27	0	1	227	1	227	1.00E-131	373
1	A105_06368T0	Z519_10672T0	88.13	278	32	1	1	277	113	390	5.00E-152	433
1	A105_11862T0	Z519_01966T0	88.15	802	95	0	1	802	1	802	0	1437
1	A105_00166T0	Z519_00166T0	88.16	667	68	2	1	667	1	656	0	1180
1	A105_05892T0	Z519_04842T0	88.18	296	22	1	1	296	1	283	3.00E-174	486
1	A105_02449T0	Z519_06981T0	88.19	618	28	1	1	618	1	573	0	1056
1	A105_02768T0	Z519_07300T0	88.19	127	15	0	1	127	1	127	4.00E-78	229

1	A105_03711T0	Z519_03030T0	88.19	432	51	0	1	432	1	432	0	782
27	A105_05360T0	Z519_08235T0	88.19	237	24	1	137	373	1	233	4.00E-153	444
1	A105_10113T0	Z519_04262T0	88.19	542	51	3	1	540	1	531	0	937
1	A105_12218T0	Z519_04536T0	88.19	144	17	0	46	189	9	152	2.00E-86	255
1	A105_02829T0	Z519_07360T0	88.2	517	59	2	1	516	1	516	0	825
1	A105_07202T0	Z519_06298T0	88.2	356	42	0	1	356	1	356	0	613
4	A105_08497T0	Z519_05555T0	88.21	424	47	1	1	421	1	424	0	613
5	A105_12515T0	Z519_02849T0	88.21	263	14	1	1	263	1	246	1.00E-155	436
1	A105_06994T0	Z519_06504T0	88.22	993	93	2	1	992	1	970	0	1764
1	A105_04835T0	Z519_02660T0	88.23	1657	149	8	1	1637	1	1631	0	2651
1	A105_04322T0	Z519_03599T0	88.24	85	10	0	1	85	1	85	2.00E-47	149
1	A105_02732T0	Z519_07266T0	88.25	315	37	0	1	315	1	315	0	575
1	A105_11500T0	Z519_08778T0	88.25	570	67	0	1	570	1	570	0	1053
1	A105_00697T0	Z519_00691T0	88.26	264	31	0	1	264	260	523	9.00E-158	452
1	A105_02109T0	Z519_01371T0	88.26	247	29	0	1	247	1	247	3.00E-154	432
1	A105_11877T0	Z519_01981T0	88.26	230	25	1	1	230	1	228	2.00E-124	355
21	A105_06392T0	Z519_10650T0	88.27	179	14	1	1	179	1	172	3.00E-110	321
92	A105_01594T0	Z519_01821T0	88.28	256	27	1	1	256	1	253	2.00E-166	466
1	A105_02718T0	Z519_07255T0	88.28	529	33	2	1	529	1	500	0	885
1	A105_07227T0	Z519_05804T0	88.28	606	71	0	2	607	11	616	0	1057
3	A105_07296T0	Z519_05872T0	88.28	128	15	0	4	131	202	329	2.00E-73	234
2	A105_12945T0	Z519_11084T0	88.28	478	24	1	1	478	1	446	0	856
1	A105_01376T0	Z519_11893T0	88.29	632	72	2	1	632	17	646	0	1083
8	A105_01492T0	Z519_01922T0	88.29	205	24	0	1	205	1	205	4.00E-134	377
1	A105_09539T0	Z519_01058T0	88.29	222	26	0	1	222	1	222	1.00E-144	405
1	A105_13020T0	Z519_04437T0	88.29	299	31	1	1	299	362	656	0	545
2	A105_11035T0	Z519_06835T0	88.3	1111	130	0	12	1122	12	1122	0	1959
1	A105_02377T0	Z519_11595T0	88.31	77	9	0	39	115	4	80	2.00E-46	146
1	A105_03401T0	Z519_10222T0	88.31	231	27	0	1	231	1	231	1.00E-146	412
115	A105_06089T0	Z519_04653T0	88.31	522	39	1	1	522	1	500	0	954
2	A105_07239T0	Z519_05817T0	88.31	1069	112	7	1	1065	1	1060	0	1855
1	A105_02291T0	Z519_11685T0	88.32	214	17	1	1	214	1	206	6.00E-122	347
170	A105_05970T0	Z519_04765T0	88.32	274	12	1	2	255	45	318	3.00E-163	458
1	A105_06748T0	Z519_06761T0	88.32	591	69	0	1	591	1	591	0	1033
3	A105_02118T0	Z519_01362T0	88.33	120	14	0	1	120	1	120	5.00E-73	219

1	A105_09722T0	Z519_10486T0	88.33	120	14	0	1	120	1	120	7.00E-72	217
4	A105_12123T0	Z519_12383T0	88.33	480	35	1	1	459	1	480	0	866
14	A105_06433T0	Z519_10608T0	88.34	609	44	1	2	583	1	609	0	1070
11	A105_03646T0	Z519_09775T0	88.35	309	10	1	1	309	1	283	0	551
3	A105_08316T0	Z519_09531T0	88.36	481	48	2	1	479	1	475	0	756
60	A105_10146T0	Z519_04297T0	88.36	146	17	0	1	146	1	146	8.00E-81	263
2	A105_00403T0	Z519_00404T0	88.37	86	10	0	265	350	34	119	1.00E-44	157
2	A105_02252T0	Z519_11727T0	88.37	215	8	1	1	215	1	198	3.00E-130	368
1	A105_08725T0	Z519_03933T0	88.37	86	10	0	1	86	1	86	3.00E-50	159
1	A105_09213T0	Z519_05325T0	88.39	336	33	1	4	333	1	336	0	590
4	A105_05123T0	Z519_08014T0	88.4	250	26	2	1	247	1	250	2.00E-148	417
7	A105_05917T0	Z519_04817T0	88.4	431	44	4	1	429	1	427	0	721
4	A105_07010T0	Z519_06490T0	88.41	302	31	2	1	302	302	599	5.00E-180	513
3	A105_04883T0	Z519_02707T0	88.42	95	11	0	152	246	1	95	2.00E-53	170
28	A105_07551T0	Z519_06114T0	88.43	337	18	1	1	316	1	337	0	606
92	A105_12646T0	Z519_05391T0	88.43	363	38	1	1	363	1	359	0	657
1	A105_02027T0	Z519_01429T0	88.44	666	57	2	1	666	1	646	0	1191
2	A105_08595T0	Z519_04052T0	88.44	424	36	2	1	416	1	419	0	676
4	A105_07047T0	Z519_06455T0	88.45	1082	112	2	1	1081	1	1070	0	1939
2	A105_00868T0	Z519_00817T0	88.46	416	30	1	6	421	107	504	0	748
1	A105_01552T0	Z519_01869T0	88.46	78	9	0	1	78	1	78	7.00E-48	155
1	A105_05210T0	Z519_08084T0	88.46	78	9	0	1	78	442	519	4.00E-43	147
14	A105_05509T0	Z519_03623T0	88.46	416	30	1	1	416	1	398	0	743
14	A105_05700T0	Z519_11150T0	88.46	338	30	1	1	338	1	329	0	597
4	A105_06862T0	Z519_06640T0	88.46	182	21	0	93	274	11	192	9.00E-108	325
1	A105_08175T0	Z519_09399T0	88.46	719	72	1	1	719	1	708	0	1204
1	A105_03583T0	Z519_09707T0	88.47	347	37	2	1	347	1	344	0	588
8	A105_07081T0	Z519_06419T0	88.48	330	38	0	1	330	1	330	0	594
1	A105_08611T0	Z519_04038T0	88.48	651	75	0	1	651	1	651	0	1167
5	A105_10242T0	Z519_10907T0	88.48	217	25	0	1	217	21	237	8.00E-143	401
1	A105_11646T0	Z519_08652T0	88.48	599	67	1	1	599	1	597	0	1047
1	A105_06319T0	Z519_10706T0	88.49	443	50	1	160	601	1	443	0	815
4	A105_08797T0	Z519_03857T0	88.5	678	65	2	1	667	1	676	0	1129
1	A105_09653T0	Z519_10551T0	88.5	513	58	1	1	513	1	512	0	953
1	A105_07110T0	Z519_06390T0	88.51	531	61	0	10	540	1	531	0	956

1	A105_13411T0	Z519_12474T0	88.51	470	54	0	1	470	1	470	0	852
1	A105_00215T0	Z519_00214T0	88.52	61	3	1	1	57	1	61	2.00E-30	103
1	A105_05411T0	Z519_08286T0	88.52	366	42	0	1	366	1	366	0	658
1	A105_11150T0	Z519_08925T0	88.52	61	7	0	1	61	1	61	6.00E-35	119
1	A105_12014T0	Z519_05715T0	88.52	688	61	3	1	685	1	673	0	1108
1	A105_12807T0	Z519_12782T0	88.52	453	49	1	1	450	1	453	0	837
1	A105_02881T0	Z519_07412T0	88.53	1273	145	1	1	1273	1	1272	0	2209
5	A105_12457T0	Z519_12654T0	88.53	741	32	2	1	718	1	711	0	1303
1	A105_11264T0	Z519_08813T0	88.54	96	10	1	1	96	1	95	4.00E-54	167
140	A105_13005T0	Z519_04419T0	88.54	253	20	1	7	250	251	503	9.00E-160	456
1	A105_01355T0	Z519_11914T0	88.55	227	25	1	1	227	1	226	4.00E-137	387
1	A105_05145T0	Z519_08035T0	88.55	550	63	0	1	550	187	736	0	695
1	A105_05334T0	Z519_08208T0	88.55	996	107	2	1	989	1	996	0	1774
1	A105_06931T0	Z519_06568T0	88.55	332	36	2	1	331	1	331	0	546
3	A105_00563T0	Z519_00574T0	88.56	437	14	1	1	401	1	437	0	787
51	A105_01045T0	Z519_00968T0	88.56	682	64	1	2	669	29	710	0	1239
2	A105_06610T0	Z519_09054T0	88.56	201	23	0	1	201	1	201	2.00E-130	369
1	A105_04265T0	Z519_03543T0	88.57	350	40	0	1	350	466	815	0	603
1	A105_04291T0	Z519_03572T0	88.57	481	55	0	1	481	1	481	0	785
61	A105_09986T0	Z519_04183T0	88.57	761	53	4	1	760	1	728	0	1281
1	A105_03092T0	Z519_11946T0	88.58	473	42	1	1	461	1	473	0	767
2	A105_04984T0	Z519_12205T0	88.58	657	71	2	1	656	20	673	0	1162
1	A105_02825T0	Z519_07356T0	88.59	333	38	0	1	333	1	333	0	602
1	A105_09647T0	Z519_10557T0	88.59	184	21	0	1	184	93	276	6.00E-115	330
2	A105_06807T0	Z519_06696T0	88.6	386	44	0	1	386	1	386	0	715
1	A105_11922T0	Z519_02024T0	88.6	1289	144	3	1	1287	37	1324	0	2305
3	A105_10280T0	Z519_10946T0	88.61	509	58	0	1	509	1	509	0	884
3	A105_00359T0	Z519_00357T0	88.62	940	76	5	1	911	57	994	0	1662
8	A105_02100T0	Z519_01380T0	88.62	615	51	1	1	615	1	596	0	1117
39	A105_03160T0	Z519_10010T0	88.62	123	14	0	201	323	1	123	1.00E-74	231
1	A105_06765T0	Z519_06741T0	88.62	589	65	1	26	614	9	595	0	1015
3	A105_05502T0	Z519_03618T0	88.63	475	44	1	1	475	1	465	0	869
1	A105_10836T0	Z519_12232T0	88.63	563	64	0	2	564	142	704	0	972
1	A105_10246T0	Z519_10911T0	88.64	634	69	2	1	633	1	632	0	1027
1	A105_07483T0	Z519_06049T0	88.65	185	13	1	1	177	1	185	1.00E-110	316

1	A105_09472T0	Z519_01114T0	88.65	1163	132	0	1	1163	1	1163	0	2121
2	A105_13188T0	Z519_04334T0	88.65	520	56	1	1	520	8	524	0	935
11	A105_11963T0	Z519_05769T0	88.66	1481	142	4	57	1527	76	1540	0	2658
13	A105_01159T0	Z519_08427T0	88.67	300	30	1	1	296	1	300	0	541
1	A105_07378T0	Z519_05950T0	88.67	353	38	1	36	386	1	353	0	643
1	A105_03412T0	Z519_10234T0	88.68	733	79	2	1	730	1	732	0	1245
1	A105_05346T0	Z519_08219T0	88.68	371	3	1	1	332	1	371	0	643
1	A105_10252T0	Z519_10917T0	88.68	265	20	2	1	265	1	255	2.00E-147	416
1	A105_01377T0	Z519_11892T0	88.69	672	67	3	1	672	1	663	0	1127
1	A105_04280T0	Z519_03558T0	88.69	327	37	0	1	327	31	357	0	570
2	A105_05050T0	Z519_07941T0	88.69	619	70	0	1	619	1	619	0	1115
2	A105_06638T0	Z519_09027T0	88.69	566	49	1	1	551	1	566	0	1022
5	A105_06907T0	Z519_06592T0	88.69	548	61	1	1	548	180	726	0	997
3	A105_10834T0	Z519_12234T0	88.69	168	19	0	1	168	1	168	9.00E-107	308
3	A105_13257T0	Z519_12159T0	88.69	221	9	1	65	269	65	285	7.00E-76	235
4	A105_07252T0	Z519_05829T0	88.7	230	23	1	6	235	1	227	2.00E-124	355
1	A105_08202T0	Z519_09426T0	88.7	177	20	0	1	177	1	177	9.00E-109	311
1	A105_09840T0	Z519_10377T0	88.7	991	102	2	1	991	21	1001	0	1607
3	A105_02254T0	Z519_11725T0	88.71	939	104	1	1	939	1	937	0	1642
3	A105_02968T0	Z519_12061T0	88.71	939	102	2	1	936	1	938	0	1263
1	A105_05046T0	Z519_07937T0	88.71	363	39	1	1	361	1	363	0	605
1	A105_02414T0	Z519_06942T0	88.72	257	29	0	1	257	1	257	4.00E-164	458
1	A105_02495T0	Z519_07028T0	88.72	266	28	1	1	266	1	264	3.00E-175	487
1	A105_02545T0	Z519_07076T0	88.72	461	49	3	1	459	1	460	0	775
10	A105_09571T0	Z519_01025T0	88.72	771	83	1	1	771	1	767	0	1293
4	A105_11323T0	Z519_02136T0	88.72	461	25	2	1	434	1	461	0	758
5	A105_01668T0	Z519_01748T0	88.73	488	55	0	1	488	1	488	0	907
20	A105_01846T0	Z519_01617T0	88.73	497	41	1	1	482	55	551	0	880
27	A105_03584T0	Z519_09709T0	88.73	71	8	0	1	71	248	318	4.00E-40	135
3	A105_06897T0	Z519_06602T0	88.73	648	51	4	1	643	1	631	0	1164
1	A105_05611T0	Z519_03720T0	88.74	293	33	0	1	293	1	293	7.00E-174	486
1	A105_07603T0	Z519_06166T0	88.74	435	48	1	1	434	1	435	0	788
5	A105_13461T0	Z519_10283T0	88.74	151	17	0	58	208	381	531	9.00E-86	269
2	A105_00840T0	Z519_00786T0	88.76	267	27	1	1	264	1	267	1.00E-146	414
79	A105_01697T0	Z519_01723T0	88.76	258	29	0	1	258	1	258	6.00E-169	470

10	A105_12795T0	Z519_12793T0	88.76	712	80	0	28	739	2	713	0	1311
6	A105_07780T0	Z519_07595T0	88.77	2982	263	8	181	3162	1	2910	0	5323
1	A105_05271T0	Z519_08144T0	88.78	526	39	1	1	526	1	506	0	875
1	A105_09841T0	Z519_10376T0	88.78	1168	130	1	1	1168	1	1167	0	1993
1	A105_02719T0	Z519_07256T0	88.79	232	22	1	1	232	1	228	1.00E-145	416
2	A105_04419T0	Z519_02251T0	88.79	464	41	3	1	457	1	460	0	822
1	A105_05107T0	Z519_07997T0	88.79	116	13	0	93	208	1	116	6.00E-71	216
2	A105_07637T0	Z519_06202T0	88.79	339	26	2	14	352	34	360	0	573
1	A105_08894T0	Z519_03759T0	88.79	651	72	1	1	650	1	651	0	1124
7	A105_12171T0	Z519_09289T0	88.81	733	80	1	1	733	1	731	0	1341
28	A105_13463T0	Z519_10283T0	88.82	322	25	1	20	341	53	363	0	588
136	A105_11798T0	Z519_02886T0	88.83	358	25	2	1	343	232	589	0	648
5	A105_06128T0	Z519_04609T0	88.84	851	93	1	36	886	105	953	0	1545
2	A105_03086T0	Z519_11952T0	88.86	422	18	3	1	422	1	393	0	720
1	A105_12137T0	Z519_09250T0	88.86	404	11	1	1	370	1	404	0	701
2	A105_08495T0	Z519_05557T0	88.87	467	52	0	1	467	27	493	0	863
1	A105_02720T0	Z519_07258T0	88.89	27	3	0	1	27	1	27	2.00E-10	57.4
1	A105_03901T0	Z519_03216T0	88.89	117	13	0	1	117	928	1044	2.00E-66	217
1	A105_04175T0	Z519_03453T0	88.89	324	30	2	1	324	1	318	0	578
1	A105_07841T0	Z519_07670T0	88.89	189	21	0	1	189	1	189	9.00E-88	258
2	A105_10543T0	Z519_12600T0	88.89	72	6	1	2	73	3	72	5.00E-40	135
3	A105_12382T0	Z519_12466T0	88.89	207	23	0	8	214	22	228	1.00E-134	386
3	A105_12568T0	Z519_05477T0	88.89	279	31	0	209	487	1	279	2.00E-162	464
21	A105_01042T0	Z519_00965T0	88.91	433	47	1	4	436	27	458	0	740
1	A105_05389T0	Z519_08263T0	88.91	532	48	2	1	521	1	532	0	956
1	A105_06768T0	Z519_06732T0	88.91	523	58	0	1	523	1	523	0	920
5	A105_06817T0	Z519_06683T0	88.92	388	42	1	1	388	1	387	0	704
1	A105_03522T0	Z519_09645T0	88.93	569	62	1	1	569	1	568	0	974
1	A105_10699T0	Z519_09885T0	88.93	280	14	1	1	263	1	280	1.00E-177	502
1	A105_02746T0	Z519_07279T0	88.94	443	49	0	6	448	21	463	0	738
7	A105_05878T0	Z519_04856T0	88.94	633	70	0	1	633	1	633	0	1149
1	A105_08518T0	Z519_05533T0	88.94	407	29	1	1	391	1	407	0	734
18	A105_10363T0	Z519_11037T0	88.96	616	65	2	1	616	1	613	0	1050
2	A105_12942T0	Z519_11081T0	88.96	453	50	0	1	453	1	453	0	840
1	A105_05908T0	Z519_04826T0	88.97	272	5	2	1	248	1	271	1.00E-161	452

1	A105_09747T0	Z519_10474T0	88.97	272	30	0	1	272	226	497	1.00E-175	497
4	A105_13201T0	Z519_12487T0	88.97	1233	111	3	1	1208	1	1233	0	2205
40	A105_06158T0	Z519_04582T0	88.99	536	48	2	1	526	1	535	0	957
4	A105_08263T0	Z519_09485T0	88.99	427	40	4	24	448	1	422	0	715
1	A105_06758T0	Z519_06748T0	89	209	22	1	1	209	1	208	2.00E-86	257
1	A105_09106T0	Z519_05216T0	89	209	3	1	1	209	1	189	1.00E-129	365
1	A105_02005T0	Z519_01455T0	89.01	191	21	0	1	191	81	271	2.00E-120	345
1	A105_05403T0	Z519_08277T0	89.01	655	65	3	1	654	1	649	0	1084
3	A105_01592T0	Z519_01822T0	89.02	173	19	0	1	173	198	370	9.00E-113	328
8	A105_11374T0	Z519_02083T0	89.03	319	35	0	1	319	1	319	0	569
35	A105_03334T0	Z519_10158T0	89.04	356	21	3	10	365	26	363	0	623
1	A105_06730T0	Z519_06779T0	89.04	648	70	1	1	648	1	647	0	1160
1	A105_06831T0	Z519_06670T0	89.04	228	25	0	1	228	1	228	2.00E-102	301
5	A105_09854T0	Z519_10363T0	89.05	201	22	0	1	201	1	201	8.00E-127	358
1	A105_11663T0	Z519_08633T0	89.05	201	12	1	1	191	1	201	1.00E-113	325
2	A105_03593T0	Z519_09720T0	89.06	631	65	1	1	627	1	631	0	1126
1	A105_11981T0	Z519_05751T0	89.06	265	16	1	24	275	25	289	4.00E-149	422
1	A105_03730T0	Z519_03050T0	89.07	247	27	0	4	250	7	253	6.00E-165	460
9	A105_05995T0	Z519_04741T0	89.07	247	27	0	1	247	262	508	9.00E-158	452
1	A105_11895T0	Z519_01998T0	89.07	494	53	1	3	495	143	636	0	818
1	A105_11622T0	Z519_08673T0	89.08	174	19	0	1	174	1	174	5.00E-95	284
2	A105_03019T0	Z519_12011T0	89.09	486	47	1	1	480	1	486	0	879
1	A105_11966T0	Z519_05766T0	89.09	706	76	1	1	705	1	706	0	1299
4	A105_00948T0	Z519_00881T0	89.1	670	73	0	1	670	1	670	0	1203
7	A105_02511T0	Z519_07045T0	89.1	835	78	2	1	835	227	1048	0	1497
1	A105_00609T0	Z519_00620T0	89.11	202	22	0	1	202	1	202	2.00E-116	332
7	A105_07676T0	Z519_06240T0	89.11	349	32	1	1	349	1	343	0	580
2	A105_00924T0	Z519_00859T0	89.12	524	57	0	1	524	1	524	0	971
1	A105_03119T0	Z519_09973T0	89.12	340	37	0	1	340	1	340	0	642
1	A105_03437T0	Z519_10259T0	89.12	294	32	0	1	294	1	294	0	537
1	A105_06601T0	Z519_09063T0	89.12	147	16	0	1	147	1	147	5.00E-71	213
1	A105_09118T0	Z519_05229T0	89.12	524	57	0	60	583	1	524	0	943
4	A105_03157T0	Z519_10007T0	89.13	184	20	0	1	184	238	421	3.00E-118	350
1	A105_06007T0	Z519_04729T0	89.13	1122	117	3	1	1121	1	1118	0	1828
2	A105_06742T0	Z519_06768T0	89.13	414	45	0	1	414	1	414	0	748

2	A105_06938T0	Z519_06561T0	89.13	138	14	1	1	138	1	137	3.00E-86	250
2	A105_01748T0	Z519_01690T0	89.14	451	49	0	1	451	1	451	0	810
32	A105_02923T0	Z519_12753T0	89.14	451	45	2	1	448	1	450	0	607
3	A105_11468T0	Z519_08750T0	89.14	175	11	2	1	174	1	168	1.00E-101	315
4	A105_00372T0	Z519_00375T0	89.15	1051	91	4	1	1045	270	1303	0	1848
1	A105_04072T0	Z519_03348T0	89.15	627	68	0	1	627	1	627	0	1121
16	A105_08624T0	Z519_04025T0	89.15	562	38	2	317	878	130	668	0	1015
33	A105_05510T0	Z519_03624T0	89.16	775	46	2	1	757	1	755	0	1423
4	A105_09137T0	Z519_05247T0	89.16	323	7	1	3	297	114	436	0	566
1	A105_09712T0	Z519_10496T0	89.16	83	9	0	1	83	1	83	2.00E-45	148
88	A105_11729T0	Z519_02951T0	89.16	526	31	1	1	500	1	526	0	925
1	A105_12451T0	Z519_12660T0	89.16	249	26	1	2	250	40	287	6.00E-162	453
6	A105_03605T0	Z519_09732T0	89.17	748	77	2	1	744	1	748	0	1345
8	A105_05176T0	Z519_08064T0	89.17	351	9	1	13	363	12	333	0	635
2	A105_11358T0	Z519_02100T0	89.17	720	77	1	1	719	1	720	0	1213
2	A105_11727T0	Z519_02953T0	89.17	434	44	1	15	448	33	463	0	811
12	A105_12357T0	Z519_12441T0	89.17	120	2	1	20	139	558	666	1.00E-68	221
30	A105_06042T0	Z519_04697T0	89.18	342	36	1	1	342	1	341	0	632
22	A105_07709T0	Z519_07532T0	89.18	573	39	2	1	554	1	569	0	1031
12	A105_00418T0	Z519_00420T0	89.19	185	20	0	1	185	1	185	6.00E-122	346
4	A105_00553T0	Z519_00563T0	89.2	778	84	0	1	778	7	784	0	1147
1	A105_01036T0	Z519_00960T0	89.2	213	23	0	1	213	100	312	5.00E-137	399
1	A105_01429T0	Z519_11839T0	89.2	250	27	0	1	250	1	250	3.00E-165	460
3	A105_11548T0	Z519_11548T0	89.2	352	16	1	4	355	3	332	0	645
1	A105_10125T0	Z519_04275T0	89.21	519	34	2	91	609	1	497	0	923
1	A105_10238T0	Z519_10904T0	89.21	890	96	0	1	890	1	890	0	1578
1	A105_06159T0	Z519_04581T0	89.22	501	53	1	1	501	1	500	0	896
1	A105_06574T0	Z519_09091T0	89.22	204	22	0	1	204	1	204	3.00E-113	326
5	A105_06990T0	Z519_06508T0	89.22	677	55	1	1	659	1	677	0	1230
54	A105_12375T0	Z519_12459T0	89.22	204	22	0	1	204	1	204	5.00E-128	382
3	A105_03509T0	Z519_09633T0	89.24	158	7	1	1	158	1	148	3.00E-100	288
4	A105_05711T0	Z519_11139T0	89.24	288	11	2	1	288	1	268	0	520
2	A105_07564T0	Z519_06128T0	89.24	604	65	0	76	679	61	664	0	1077
2	A105_09133T0	Z519_05244T0	89.24	1032	101	1	1	1022	1	1032	0	1921
24	A105_13134T0	Z519_11260T0	89.24	734	79	0	1	734	1	734	0	1318

1	A105_08198T0	Z519_09422T0	89.25	93	10	0	1	93	1	93	2.00E-47	165
3	A105_09855T0	Z519_10362T0	89.25	279	29	1	1	278	1	279	2.00E-179	499
53	A105_03951T0	Z519_03250T0	89.26	624	52	2	1	616	1	617	0	1128
2	A105_01450T0	Z519_11818T0	89.27	634	39	2	1	605	1	634	0	1119
24	A105_08636T0	Z519_04022T0	89.27	466	38	3	1	454	1	466	0	860
23	A105_11653T0	Z519_08646T0	89.27	1519	151	3	4	1517	1	1512	0	2682
1	A105_00274T0	Z519_00283T0	89.28	625	67	0	1	625	1	625	0	1102
6	A105_00601T0	Z519_00612T0	89.29	168	18	0	2	169	54	221	8.00E-107	318
1	A105_02611T0	Z519_07139T0	89.29	616	56	1	1	616	1	606	0	1043
1	A105_03486T0	Z519_09610T0	89.29	28	3	0	77	104	1	28	2.00E-10	57
5	A105_08193T0	Z519_09417T0	89.29	280	30	0	1	280	1	280	0	518
7	A105_08522T0	Z519_05528T0	89.29	56	6	0	1	56	25	80	1.00E-29	108
3	A105_13313T0	Z519_05020T0	89.29	168	18	0	1	168	1	168	2.00E-108	311
1	A105_03677T0	Z519_02996T0	89.3	355	34	2	1	355	1	351	0	583
2	A105_04747T0	Z519_02577T0	89.3	271	29	0	1	271	206	476	5.00E-177	500
1	A105_05830T0	Z519_04902T0	89.3	271	29	0	1	271	86	356	7.00E-160	452
4	A105_09471T0	Z519_01115T0	89.3	355	37	1	95	448	1	355	0	630
7	A105_00628T0	Z519_00639T0	89.31	262	28	0	22	283	1	262	6.00E-175	487
2	A105_00112T0	Z519_00113T0	89.33	431	28	2	1	431	1	413	0	561
1	A105_01865T0	Z519_01600T0	89.33	450	48	0	1	450	1	450	0	781
1	A105_02708T0	Z519_07245T0	89.33	300	25	1	14	313	14	306	1.00E-168	474
3	A105_07082T0	Z519_06418T0	89.33	328	35	0	19	346	50	377	0	598
7	A105_07087T0	Z519_06412T0	89.33	862	83	4	1	858	1	857	0	1526
3	A105_07250T0	Z519_05828T0	89.33	328	35	0	1	328	1	328	0	593
1	A105_10749T0	Z519_09937T0	89.33	225	24	0	1	225	1	225	8.00E-141	396
3	A105_13182T0	Z519_04340T0	89.33	375	13	1	1	348	1	375	0	681
1	A105_01469T0	Z519_11798T0	89.34	497	53	0	1	497	1	497	0	885
17	A105_03495T0	Z519_09619T0	89.35	554	39	1	1	534	1	554	0	965
37	A105_04881T0	Z519_02704T0	89.35	216	23	0	9	224	1	216	7.00E-135	404
1	A105_06057T0	Z519_04683T0	89.35	864	90	2	1	864	1	862	0	1527
1	A105_11849T0	Z519_01955T0	89.35	432	46	0	1	432	1	432	0	739
1	A105_02700T0	Z519_07235T0	89.36	498	46	1	1	491	55	552	0	861
1	A105_09676T0	Z519_10531T0	89.36	141	10	1	1	136	1	141	3.00E-89	258
13	A105_02428T0	Z519_06958T0	89.37	367	18	1	1	367	1	346	0	665
6	A105_05397T0	Z519_08271T0	89.37	442	47	0	29	470	7	448	0	808

1	A105_08585T0	Z519_04060T0	89.37	508	53	1	1	507	1	508	0	820
1	A105_11350T0	Z519_02109T0	89.37	762	77	3	1	762	1	758	0	1306
2	A105_12628T0	Z519_05409T0	89.37	442	41	1	1	436	1	442	0	813
1	A105_03614T0	Z519_09742T0	89.38	480	38	2	1	476	1	471	0	800
1	A105_04588T0	Z519_02416T0	89.38	320	34	0	1	320	1	320	0	598
1	A105_11183T0	Z519_08897T0	89.38	226	22	1	2	227	463	686	2.00E-121	366
21	A105_00630T0	Z519_00641T0	89.39	594	63	0	113	706	2	595	0	1096
1	A105_01639T0	Z519_01778T0	89.39	726	76	1	1	726	78	802	0	1276
14	A105_06675T0	Z519_08994T0	89.39	245	26	0	23	267	22	266	7.00E-160	448
1	A105_01741T0	Z519_01697T0	89.4	302	32	0	1	302	1	302	0	546
11	A105_06459T0	Z519_09201T0	89.4	679	72	0	1	679	1	679	0	1241
1	A105_04619T0	Z519_02447T0	89.41	170	18	0	60	229	25	194	6.00E-109	314
1	A105_05558T0	Z519_03673T0	89.41	85	9	0	2	86	3	87	8.00E-46	147
1	A105_05658T0	Z519_11191T0	89.41	236	24	1	1	235	1	236	7.00E-151	422
1	A105_11530T0	Z519_11569T0	89.41	255	13	1	1	241	1	255	3.00E-167	465
1	A105_04158T0	Z519_03438T0	89.42	104	11	0	1	104	1	104	5.00E-59	189
1	A105_05837T0	Z519_04895T0	89.42	737	77	1	1	736	1	737	0	1176
1	A105_06111T0	Z519_04626T0	89.42	104	11	0	11	114	44	147	4.00E-63	191
2	A105_10028T0	Z519_04139T0	89.42	189	20	0	16	204	1	189	3.00E-122	347
11	A105_00833T0	Z519_00779T0	89.43	634	65	1	1	632	1	634	0	1187
1	A105_01444T0	Z519_11824T0	89.43	265	27	1	21	285	47	310	4.00E-175	495
1	A105_08025T0	Z519_07862T0	89.43	265	28	0	1	265	1	265	6.00E-175	487
1	A105_10805T0	Z519_12263T0	89.43	473	50	0	1	473	1	473	0	860
2	A105_04024T0	Z519_03321T0	89.44	322	34	0	6	327	1	322	0	599
20	A105_07361T0	Z519_05933T0	89.44	483	11	2	1	443	1	483	0	585
6	A105_00733T0	Z519_00726T0	89.45	199	21	0	143	341	1	199	2.00E-118	343
1	A105_01016T0	Z519_00941T0	89.45	199	21	0	1	199	120	318	6.00E-125	373
9	A105_12994T0	Z519_04409T0	89.45	711	66	2	2	707	12	718	0	1261
3	A105_11044T0	Z519_06844T0	89.46	607	51	1	1	607	1	594	0	1096
7	A105_11216T0	Z519_08865T0	89.46	351	37	0	1	351	1	351	0	649
4	A105_02880T0	Z519_07411T0	89.47	380	21	1	61	440	1	361	0	709
47	A105_08498T0	Z519_05554T0	89.47	475	50	0	1	475	66	540	0	887
3	A105_08601T0	Z519_04048T0	89.47	627	65	1	1	626	1	627	0	1160
1	A105_10178T0	Z519_12675T0	89.47	304	31	1	1	304	1	303	0	557
1	A105_04724T0	Z519_02554T0	89.48	770	72	1	1	761	1	770	0	1350

1	A105_10313T0	Z519_10978T0	89.49	257	27	0	90	346	24	280	1.00E-164	464
2	A105_11148T0	Z519_08927T0	89.49	913	54	3	18	930	30	900	0	1632
1	A105_12850T0	Z519_07455T0	89.49	666	65	2	1	661	1	666	0	1159
1	A105_06263T0	Z519_10750T0	89.5	200	18	1	1	197	1	200	3.00E-126	357
2	A105_07236T0	Z519_05813T0	89.5	200	21	0	1	200	1	200	2.00E-124	353
1	A105_01933T0	Z519_01527T0	89.51	658	66	1	1	655	1	658	0	1135
1	A105_02697T0	Z519_07230T0	89.51	143	15	0	129	271	1	143	2.00E-87	259
9	A105_05470T0	Z519_08346T0	89.51	810	67	1	1	792	1	810	0	1423
1	A105_00888T0	Z519_00837T0	89.52	668	68	2	1	668	1	666	0	1175
5	A105_02148T0	Z519_01331T0	89.52	372	15	1	1	348	524	895	0	688
2	A105_02691T0	Z519_07224T0	89.52	124	13	0	1	124	334	457	2.00E-72	229
10	A105_03848T0	Z519_03166T0	89.52	229	24	0	1	229	1	229	1.00E-150	433
2	A105_05843T0	Z519_04890T0	89.53	191	20	0	1	191	1	191	2.00E-125	354
1	A105_12932T0	Z519_11070T0	89.53	831	68	2	1	812	1	831	0	1491
2	A105_00507T0	Z519_00513T0	89.54	153	16	0	177	329	1	153	2.00E-91	273
2	A105_03873T0	Z519_03191T0	89.54	459	48	0	1	459	1	459	0	838
1	A105_06635T0	Z519_09030T0	89.55	268	28	0	1	268	1	268	8.00E-149	420
8	A105_08743T0	Z519_03915T0	89.55	287	28	1	1	287	1	285	1.00E-178	497
4	A105_09362T0	Z519_01205T0	89.55	134	14	0	1	134	125	258	1.00E-86	256
12	A105_10510T0	Z519_11388T0	89.55	134	14	0	8	141	59	192	7.00E-81	240
3	A105_10530T0	Z519_12614T0	89.55	134	14	0	1	134	115	248	6.00E-79	236
1	A105_11478T0	Z519_08759T0	89.55	268	27	1	1	267	1	268	1.00E-149	422
8	A105_06436T0	Z519_10605T0	89.56	316	15	1	1	298	1	316	0	579
136	A105_07697T0	Z519_07518T0	89.56	182	19	0	34	215	27	208	2.00E-116	335
50	A105_08792T0	Z519_03866T0	89.56	642	63	2	1	639	82	722	0	1162
1	A105_11917T0	Z519_02019T0	89.56	1169	113	3	1	1161	1	1168	0	1844
1	A105_00685T0	Z519_00680T0	89.57	374	34	2	57	430	1	369	0	690
1	A105_06174T0	Z519_04566T0	89.57	671	57	3	1	668	1	661	0	1019
1	A105_07581T0	Z519_06144T0	89.57	681	70	1	1	681	1	680	0	1165
4	A105_03156T0	Z519_10007T0	89.58	192	20	0	10	201	11	202	4.00E-116	345
15	A105_06129T0	Z519_04608T0	89.58	710	54	2	1	710	1	690	0	1305
32	A105_07554T0	Z519_06117T0	89.58	355	36	1	556	910	1	354	0	647
1	A105_05578T0	Z519_03691T0	89.59	461	47	1	1	461	11	470	0	838
1	A105_07984T0	Z519_07820T0	89.59	845	83	2	1	841	1	844	0	1528
6	A105_00752T0	Z519_00745T0	89.6	644	36	2	1	629	70	697	0	1137

1	A105_01996T0	Z519_01464T0	89.6	471	49	0	1	471	8	478	0	748
1	A105_10261T0	Z519_10926T0	89.6	346	30	1	201	540	200	545	0	564
1	A105_00369T0	Z519_00372T0	89.61	539	53	3	1	538	1	537	0	897
1	A105_05418T0	Z519_08293T0	89.61	635	66	0	1	635	24	658	0	1085
1	A105_05760T0	Z519_04977T0	89.61	356	36	1	129	484	1	355	0	629
32	A105_08355T0	Z519_09569T0	89.61	337	15	1	1	317	1	337	0	618
8	A105_11052T0	Z519_06853T0	89.61	308	29	1	1	305	1	308	0	507
4	A105_11376T0	Z519_02081T0	89.61	231	10	1	1	231	1	217	7.00E-149	417
1	A105_11561T0	Z519_11535T0	89.62	453	33	2	1	440	1	452	0	752
3	A105_12364T0	Z519_12448T0	89.62	318	32	1	1	317	1	318	0	593
1	A105_00571T0	Z519_00582T0	89.63	1735	171	3	1	1726	1	1735	0	2981
3	A105_11114T0	Z519_06916T0	89.63	463	48	0	1	463	1	463	0	833
1	A105_04845T0	Z519_02669T0	89.64	724	72	2	1	722	75	797	0	1264
3	A105_11253T0	Z519_08825T0	89.64	193	20	0	31	223	110	302	5.00E-122	352
1	A105_11437T0	Z519_08716T0	89.64	637	65	1	1	636	1	637	0	1120
25	A105_01631T0	Z519_01786T0	89.66	203	9	1	1	191	1	203	7.00E-129	365
2	A105_07074T0	Z519_06427T0	89.66	232	23	1	1	232	1	231	3.00E-138	391
2	A105_10145T0	Z519_04296T0	89.66	435	44	1	1	435	254	687	0	793
1	A105_13436T0	Z519_12195T0	89.66	435	36	2	1	427	1	434	0	731
1	A105_06505T0	Z519_09160T0	89.67	271	28	0	1	271	10	280	0	512
1	A105_07711T0	Z519_07534T0	89.67	242	25	0	1	242	1	242	2.00E-159	446
1	A105_10137T0	Z519_04288T0	89.67	271	27	1	1	270	1	271	7.00E-172	479
4	A105_10853T0	Z519_11391T0	89.67	300	31	0	1	300	1	300	0	538
1	A105_05763T0	Z519_04974T0	89.68	126	8	2	1	121	1	126	7.00E-45	148
1	A105_09714T0	Z519_10494T0	89.68	126	9	1	1	126	1	122	4.00E-76	224
1	A105_04983T0	Z519_02807T0	89.69	320	33	0	9	328	244	563	0	588
7	A105_07377T0	Z519_05949T0	89.69	417	28	3	1	408	1	411	0	745
4	A105_01259T0	Z519_08525T0	89.7	845	87	0	1	845	151	995	0	1531
1	A105_02651T0	Z519_07183T0	89.7	437	44	1	1	436	71	507	0	775
2	A105_02926T0	Z519_12750T0	89.7	233	20	1	1	233	1	229	9.00E-151	422
1	A105_04768T0	Z519_02595T0	89.7	330	31	2	1	328	1	329	0	551
1	A105_04602T0	Z519_02430T0	89.71	350	17	1	1	331	1	350	0	629
2	A105_12651T0	Z519_05385T0	89.71	204	21	0	1	204	1	204	5.00E-134	379
5	A105_08091T0	Z519_04309T0	89.72	1439	126	1	1151	2567	1545	2983	0	2612
1	A105_09776T0	Z519_10444T0	89.72	253	8	2	1	253	1	235	4.00E-128	367

16	A105_10334T0	Z519_11001T0	89.72	642	45	2	1	633	1	630	0	1149
1	A105_06739T0	Z519_06771T0	89.73	292	28	2	1	292	1	290	4.00E-171	479
1	A105_12341T0	Z519_12427T0	89.73	146	15	0	1	146	1	146	4.00E-77	228
1	A105_12775T0	Z519_10834T0	89.73	711	73	0	1	711	1	711	0	1315
1	A105_13202T0	Z519_12488T0	89.73	331	34	0	1	331	1	331	0	567
1	A105_01511T0	Z519_01906T0	89.74	78	8	0	110	187	1	78	3.00E-30	107
1	A105_08030T0	Z519_07867T0	89.74	536	53	2	1	536	1	534	0	904
20	A105_08094T0	Z519_04306T0	89.74	78	8	0	1	78	434	511	4.00E-44	149
2	A105_05080T0	Z519_07970T0	89.76	166	10	1	1	159	32	197	9.00E-102	298
16	A105_13317T0	Z519_05016T0	89.76	840	69	1	1	840	1	823	0	1558
1	A105_01331T0	Z519_08595T0	89.77	215	19	1	1	212	1	215	2.00E-125	356
6	A105_09784T0	Z519_10436T0	89.77	469	23	2	1	469	17	460	0	770
1	A105_10509T0	Z519_11387T0	89.77	176	18	0	1	176	1	176	5.00E-111	325
9	A105_13348T0	Z519_09321T0	89.77	577	42	3	1	560	1	577	0	988
5	A105_01173T0	Z519_08440T0	89.78	323	33	0	121	443	1	323	0	604
1	A105_03413T0	Z519_10235T0	89.78	137	14	0	1	137	1	137	7.00E-85	247
1	A105_04743T0	Z519_02573T0	89.78	489	46	3	1	486	1	488	0	766
2	A105_02429T0	Z519_06959T0	89.79	333	34	0	1	333	1	333	0	588
2	A105_07853T0	Z519_07682T0	89.79	284	29	0	1	284	1	284	0	536
1	A105_11959T0	Z519_05774T0	89.79	519	53	0	1	519	1	519	0	945
2	A105_03041T0	Z519_11996T0	89.8	461	46	1	270	730	1	460	0	824
3	A105_08246T0	Z519_09467T0	89.8	196	20	0	1	196	77	272	3.00E-128	365
26	A105_10359T0	Z519_11033T0	89.8	196	20	0	1	196	1	196	1.00E-122	364
2	A105_05209T0	Z519_08083T0	89.81	108	11	0	94	201	295	402	2.00E-59	198
1	A105_09369T0	Z519_01199T0	89.81	422	43	0	1	422	1	422	0	675
155	A105_04899T0	Z519_02723T0	89.82	550	31	1	1	525	1	550	0	993
1	A105_07125T0	Z519_06376T0	89.82	383	30	2	1	377	1	380	0	578
1	A105_07943T0	Z519_07785T0	89.82	393	40	0	1	393	1	393	0	692
4	A105_11823T0	Z519_01930T0	89.82	894	91	0	1	894	1	894	0	1598
8	A105_13328T0	Z519_05005T0	89.82	285	27	1	17	299	49	333	5.00E-164	462
1	A105_04871T0	Z519_02695T0	89.83	777	79	0	1	777	1	777	0	1397
4	A105_07888T0	Z519_07719T0	89.83	482	49	0	1	482	1	482	0	897
1	A105_08694T0	Z519_03965T0	89.83	177	16	2	1	176	1	176	2.00E-75	226
1	A105_10757T0	Z519_09945T0	89.85	404	39	2	1	404	1	402	0	569
11	A105_02114T0	Z519_01366T0	89.86	700	59	1	1	688	1	700	0	1281

38	A105_04750T0	Z519_02578T0	89.86	207	20	1	303	509	1	206	4.00E-132	385
1	A105_09215T0	Z519_05328T0	89.86	138	12	1	1	138	1	136	9.00E-65	196
63	A105_09600T0	Z519_01008T0	89.86	621	38	2	1	621	1	596	0	1083
1	A105_12898T0	Z519_07502T0	89.86	483	42	1	23	498	69	551	0	735
1	A105_05348T0	Z519_08221T0	89.87	454	26	1	1	434	1	454	0	805
1	A105_08449T0	Z519_05603T0	89.87	158	16	0	1	158	1	158	1.00E-98	284
14	A105_10592T0	Z519_12561T0	89.87	306	31	0	1	306	1	306	0	552
1	A105_12398T0	Z519_06278T0	89.87	79	8	0	1	79	10	88	2.00E-43	152
1	A105_00375T0	Z519_00378T0	89.88	939	95	0	1	939	280	1218	0	1691
1	A105_07178T0	Z519_06322T0	89.88	168	17	0	12	179	1	168	1.00E-107	309
3	A105_09107T0	Z519_05217T0	89.88	257	26	0	1	257	1	257	3.00E-168	468
2	A105_09210T0	Z519_05323T0	89.88	247	25	0	1	247	1	247	5.00E-165	459
1	A105_02717T0	Z519_07254T0	89.89	554	44	1	27	580	407	948	0	970
3	A105_08166T0	Z519_09390T0	89.89	851	60	3	1	826	1	850	0	1560
22	A105_13410T0	Z519_12473T0	89.89	277	16	1	1	277	1	265	0	515
1	A105_01426T0	Z519_11842T0	89.9	307	31	0	1	307	1	307	0	567
1	A105_11153T0	Z519_08924T0	89.9	198	20	0	72	269	1	198	6.00E-129	368
6	A105_11937T0	Z519_02038T0	89.9	574	54	2	1	574	1	570	0	980
2	A105_03702T0	Z519_03021T0	89.92	238	24	0	1	238	1	238	1.00E-150	422
1	A105_04471T0	Z519_02300T0	89.92	397	40	0	1	397	1	397	0	743
1	A105_10907T0	Z519_11447T0	89.92	506	48	1	1	503	1	506	0	921
89	A105_11863T0	Z519_01967T0	89.92	516	17	2	1	516	1	481	0	936
1	A105_00566T0	Z519_00577T0	89.93	427	36	2	1	427	1	420	0	758
4	A105_02890T0	Z519_07421T0	89.93	447	30	1	1	447	1	432	0	828
3	A105_04101T0	Z519_03374T0	89.94	179	18	0	1	179	1	179	5.00E-114	325
1	A105_05394T0	Z519_08268T0	89.94	338	33	1	1	338	1	337	0	526
1	A105_01416T0	Z519_11852T0	89.95	219	4	1	1	219	1	201	1.00E-122	349
4	A105_04720T0	Z519_02550T0	89.95	199	20	0	1	199	1	199	2.00E-132	373
2	A105_08745T0	Z519_03913T0	89.95	428	43	0	1	428	20	447	0	755
2	A105_09436T0	Z519_01150T0	89.95	617	61	1	1	617	1	616	0	1037
42	A105_13449T0	Z519_12171T0	89.96	259	12	2	1	254	1	250	8.00E-168	467
7	A105_04067T0	Z519_03343T0	89.97	349	17	1	1	349	1	331	0	649
1	A105_04599T0	Z519_02427T0	89.97	359	17	2	1	340	1	359	0	624
1	A105_07101T0	Z519_06399T0	89.97	319	32	0	1	319	1	319	0	533
59	A105_08587T0	Z519_04058T0	89.97	768	77	0	1	768	1	768	0	1452

1	A105_04314T0	Z519_03592T0	89.98	499	50	0	1	499	1	499	0	906
5	A105_04868T0	Z519_02692T0	89.98	589	59	0	1	589	1	589	0	996
1	A105_06004T0	Z519_04732T0	89.98	439	44	0	1	439	1	439	0	733
2	A105_10260T0	Z519_10925T0	89.98	519	42	2	1	511	1	517	0	912
1	A105_01177T0	Z519_08444T0	90	50	5	0	1	50	51	100	1.00E-24	94.7
1	A105_02654T0	Z519_07186T0	90	100	10	0	1	100	1	100	1.00E-58	177
2	A105_08982T0	Z519_05086T0	90	190	19	0	1	190	1	190	3.00E-125	354
5	A105_09360T0	Z519_01207T0	90	200	20	0	5	204	81	280	4.00E-114	336
1	A105_10182T0	Z519_10848T0	90	330	24	1	1	330	1	321	0	575
1	A105_11405T0	Z519_02054T0	90	160	16	0	28	187	44	203	6.00E-103	298
7	A105_11546T0	Z519_11550T0	90	180	18	0	1	180	1	180	4.00E-113	329
5	A105_11621T0	Z519_08673T0	90	200	20	0	1	200	203	402	2.00E-130	379
1	A105_11923T0	Z519_02025T0	90	100	10	0	5	104	96	195	1.00E-46	155
1	A105_12062T0	Z519_12322T0	90	160	15	1	1	160	1	159	1.00E-96	279
1	A105_00864T0	Z519_00812T0	90.02	441	44	0	1	441	1	441	0	781
9	A105_07570T0	Z519_06134T0	90.02	601	51	2	1	601	1	592	0	981
2	A105_09769T0	Z519_10453T0	90.02	421	42	0	1	421	14	434	0	735
30	A105_00419T0	Z519_00421T0	90.03	602	41	1	1	602	1	583	0	1085
1	A105_05045T0	Z519_07936T0	90.04	251	25	0	1	251	1	251	5.00E-171	476
5	A105_06676T0	Z519_08993T0	90.04	241	24	0	11	251	32	272	9.00E-165	460
1	A105_00852T0	Z519_00800T0	90.05	643	57	2	1	637	1	642	0	1064
3	A105_05085T0	Z519_07975T0	90.05	965	95	1	1	964	1	965	0	1716
1	A105_09692T0	Z519_10515T0	90.05	663	55	2	1	652	1	663	0	1014
6	A105_03202T0	Z519_10053T0	90.06	1066	104	1	1	1066	1	1064	0	1782
1	A105_04169T0	Z519_03447T0	90.06	362	23	2	1	350	1	361	1.00E-157	449
4	A105_09060T0	Z519_05172T0	90.06	483	38	1	1	473	1	483	0	774
2	A105_09193T0	Z519_05307T0	90.06	181	18	0	7	187	78	258	6.00E-116	333
1	A105_01659T0	Z519_01757T0	90.07	151	15	0	1	151	1	151	2.00E-97	281
1	A105_02986T0	Z519_12043T0	90.07	302	30	0	1	302	1	302	0	563
1	A105_07629T0	Z519_06192T0	90.07	151	15	0	26	176	108	258	1.00E-94	285
2	A105_12736T0	Z519_10796T0	90.07	272	27	0	197	468	266	537	8.00E-173	499
6	A105_12866T0	Z519_07470T0	90.07	141	14	0	6	146	195	335	1.00E-84	261
30	A105_01835T0	Z519_01627T0	90.08	353	15	1	1	333	1	353	0	646
1	A105_01705T0	Z519_01717T0	90.09	777	77	0	1	777	1	777	0	1449
1	A105_04241T0	Z519_03519T0	90.09	222	21	1	1	222	173	393	3.00E-141	412

8	A105_00588T0	Z519_00598T0	90.1	879	65	4	1	858	1	878	0	1440
1	A105_03247T0	Z519_10096T0	90.1	687	61	3	1	685	1	682	0	1222
6	A105_05745T0	Z519_04996T0	90.1	576	57	0	1	576	34	609	0	1063
4	A105_09820T0	Z519_10398T0	90.1	101	10	0	48	148	1	101	7.00E-54	174
5	A105_10887T0	Z519_11426T0	90.1	192	19	0	409	600	412	603	7.00E-104	330
1	A105_12551T0	Z519_05501T0	90.1	2081	201	3	1	2080	1	2077	0	3773
3	A105_06509T0	Z519_09156T0	90.11	637	62	1	1	636	1	637	0	1170
28	A105_04488T0	Z519_02315T0	90.12	344	33	1	1	344	1	343	0	646
1	A105_10174T0	Z519_12679T0	90.12	81	8	0	1	81	1	81	4.00E-49	152
2	A105_10206T0	Z519_10872T0	90.12	607	58	2	1	607	1	605	0	1050
67	A105_10813T0	Z519_12255T0	90.12	344	14	1	1	344	1	324	0	611
11	A105_02604T0	Z519_07133T0	90.13	476	47	0	1	476	1	476	0	889
1	A105_07404T0	Z519_05976T0	90.13	152	15	0	1	152	1	152	8.00E-100	286
109	A105_01334T0	Z519_11930T0	90.14	294	26	1	1	291	1	294	0	515
6	A105_01982T0	Z519_01478T0	90.14	142	14	0	1	142	1	142	1.00E-89	273
91	A105_03542T0	Z519_09664T0	90.14	781	77	0	1	781	87	867	0	1427
2	A105_04913T0	Z519_02740T0	90.14	142	14	0	1	142	1	142	9.00E-78	236
1	A105_05778T0	Z519_04959T0	90.14	507	49	1	1	507	1	506	0	904
1	A105_08066T0	Z519_07901T0	90.14	700	66	3	1	698	1	699	0	1138
1	A105_08870T0	Z519_03783T0	90.14	345	15	2	48	373	181	525	0	592
2	A105_10008T0	Z519_04159T0	90.14	71	7	0	1	71	1	71	5.00E-43	135
1	A105_00531T0	Z519_00538T0	90.15	619	28	3	1	586	21	639	0	1067
1	A105_01080T0	Z519_00999T0	90.15	1381	133	1	1	1381	1	1378	0	2461
3	A105_02324T0	Z519_11651T0	90.15	335	32	1	1	335	1	334	0	622
1	A105_09284T0	Z519_01281T0	90.15	751	71	2	1	751	1	748	0	1148
1	A105_09641T0	Z519_10563T0	90.16	122	12	0	1	122	1	122	6.00E-65	199
2	A105_11115T0	Z519_06917T0	90.16	183	18	0	1	183	1	183	1.00E-99	290
1	A105_11404T0	Z519_02055T0	90.16	244	24	0	1	244	1	244	2.00E-162	453
1	A105_12319T0	Z519_12406T0	90.16	244	24	0	1	244	1	244	2.00E-159	445
1	A105_12321T0	Z519_12408T0	90.16	193	19	0	1	193	1	193	9.00E-114	325
1	A105_12326T0	Z519_12414T0	90.16	244	23	1	1	244	1	243	3.00E-161	449
1	A105_13033T0	Z519_04450T0	90.16	193	13	1	1	193	1	187	2.00E-93	280
2	A105_04585T0	Z519_02413T0	90.17	529	35	2	1	513	1	528	0	961
1	A105_04319T0	Z519_03596T0	90.18	275	27	0	6	280	1	275	0	513
1	A105_05084T0	Z519_07974T0	90.19	265	26	0	1	265	1	265	4.00E-175	486

2	A105_06669T0	Z519_09000T0	90.19	418	41	0	1	418	1	418	0	785
1	A105_08348T0	Z519_09562T0	90.19	265	26	0	1	265	1	265	2.00E-175	488
4	A105_11180T0	Z519_08898T0	90.19	469	45	1	1	469	1	468	0	868
2	A105_03600T0	Z519_09727T0	90.2	500	33	2	1	489	1	495	0	830
1	A105_04963T0	Z519_02787T0	90.2	449	18	4	1	424	1	448	0	771
1	A105_10071T0	Z519_04100T0	90.2	888	76	2	1	886	345	1223	0	1685
2	A105_10147T0	Z519_04298T0	90.2	102	10	0	361	462	5	106	2.00E-59	193
6	A105_02389T0	Z519_06919T0	90.21	715	35	3	1	699	1	696	0	1299
1	A105_02620T0	Z519_07148T0	90.21	235	23	0	1	235	1	235	5.00E-154	431
13	A105_07354T0	Z519_05926T0	90.22	358	35	0	1	358	1	358	0	690
1	A105_07927T0	Z519_07765T0	90.22	1166	106	4	1	1162	1	1162	0	2064
1	A105_00614T0	Z519_00624T0	90.23	174	17	0	1	174	1	174	7.00E-111	316
1	A105_09350T0	Z519_01218T0	90.23	1280	123	2	1	1280	1	1278	0	2256
1	A105_09716T0	Z519_10492T0	90.23	809	77	2	1	809	1	807	0	1414
1	A105_04601T0	Z519_02429T0	90.24	205	20	0	1	205	1	205	2.00E-137	386
1	A105_10608T0	Z519_11109T0	90.24	297	29	0	1	297	79	375	0	541
1	A105_10730T0	Z519_09918T0	90.24	410	39	1	1	409	1	410	0	722
1	A105_11647T0	Z519_08651T0	90.24	205	19	1	1	205	1	204	3.00E-125	355
25	A105_12654T0	Z519_12738T0	90.24	328	32	0	1	328	1	328	0	613
1	A105_13073T0	Z519_12137T0	90.24	205	20	0	1	205	1	205	4.00E-134	377
50	A105_03589T0	Z519_09715T0	90.25	831	81	0	1	831	1	831	0	1515
1	A105_06777T0	Z519_06720T0	90.25	277	25	1	1	277	1	275	1.00E-180	501
1	A105_11671T0	Z519_08625T0	90.25	359	34	1	1	358	1	359	0	651
1	A105_13160T0	Z519_04364T0	90.25	1333	121	6	1	1327	1	1330	0	2113
1	A105_00479T0	Z519_00486T0	90.26	852	75	2	1	850	1	846	0	1446
1	A105_03797T0	Z519_03118T0	90.26	349	28	3	1	348	1	344	0	508
1	A105_08485T0	Z519_05565T0	90.26	503	47	2	1	503	1	501	0	839
2	A105_12129T0	Z519_12389T0	90.26	380	19	1	1	362	1	380	0	704
13	A105_00064T0	Z519_00063T0	90.27	339	32	1	1	338	1	339	0	600
40	A105_00766T0	Z519_00758T0	90.27	329	31	1	1	329	519	846	0	582
1	A105_01920T0	Z519_01541T0	90.27	904	85	2	1	904	103	1003	0	1660
1	A105_02609T0	Z519_07138T0	90.27	514	49	1	7	520	1117	1629	0	917
6	A105_02911T0	Z519_12765T0	90.27	668	49	2	1	668	1	652	0	1214
1	A105_07015T0	Z519_06486T0	90.27	473	45	1	1	473	1	472	0	858
4	A105_07624T0	Z519_06187T0	90.27	370	36	0	1	370	1	370	0	647

9	A105_05521T0	Z519_03637T0	90.28	1358	106	1	1	1358	1	1332	0	2497
4	A105_05848T0	Z519_04884T0	90.28	72	7	0	41	112	154	225	2.00E-41	139
1	A105_12814T0	Z519_12530T0	90.28	288	27	1	1	288	1	287	1.00E-159	458
2	A105_00224T0	Z519_00222T0	90.29	309	30	0	1	309	1	309	0	575
1	A105_13070T0	Z519_12134T0	90.29	278	27	0	1	278	1	278	0	523
4	A105_13401T0	Z519_04228T0	90.29	309	29	1	1	308	1	309	0	581
3	A105_00423T0	Z519_00425T0	90.3	237	23	0	1	237	1	237	8.00E-153	428
114	A105_01379T0	Z519_11890T0	90.3	299	9	1	1	299	1	279	0	554
8	A105_01561T0	Z519_01860T0	90.3	526	38	1	1	513	1	526	0	934
3	A105_02657T0	Z519_07189T0	90.3	237	22	1	1	236	1	237	5.00E-156	436
3	A105_05554T0	Z519_03669T0	90.3	670	61	2	1	666	1	670	0	1023
1	A105_06836T0	Z519_06665T0	90.3	371	35	1	1	371	78	447	0	685
1	A105_10837T0	Z519_12231T0	90.3	134	13	0	1	134	203	336	6.00E-84	254
3	A105_11155T0	Z519_08921T0	90.3	1093	99	2	1	1093	1	1086	0	1929
1	A105_04282T0	Z519_03560T0	90.31	320	31	0	1	320	10	329	0	608
157	A105_09416T0	Z519_01169T0	90.31	1341	86	3	1	1314	1	1324	0	2407
1	A105_09852T0	Z519_10366T0	90.31	351	34	0	1	351	1	351	0	660
54	A105_12761T0	Z519_10820T0	90.31	815	36	3	42	856	151	922	0	1479
3	A105_01534T0	Z519_01886T0	90.32	1043	97	3	1	1042	1	1040	0	1903
5	A105_01948T0	Z519_01512T0	90.32	589	20	2	1	555	1	586	0	1070
1	A105_07635T0	Z519_06197T0	90.32	31	3	0	86	116	347	377	8.00E-16	72
111	A105_09715T0	Z519_10493T0	90.32	465	38	2	1	458	1	465	0	844
2	A105_06115T0	Z519_04623T0	90.33	269	25	1	1	268	1	269	0	502
1	A105_08688T0	Z519_03971T0	90.33	300	29	0	1	300	1	300	0	518
1	A105_08717T0	Z519_03941T0	90.33	931	90	0	1	931	93	1023	0	1632
1	A105_12107T0	Z519_12368T0	90.33	1117	108	0	1	1117	1	1117	0	2071
1	A105_01882T0	Z519_01582T0	90.34	207	12	2	1	207	1	199	1.00E-117	335
2	A105_03066T0	Z519_11972T0	90.34	207	20	0	47	253	1	207	2.00E-143	403
9	A105_09774T0	Z519_10448T0	90.34	704	50	1	1	704	1	686	0	1269
11	A105_03392T0	Z519_10213T0	90.35	404	15	2	1	392	1	392	0	730
2	A105_08660T0	Z519_03996T0	90.35	373	35	1	1	373	1	372	0	635
2	A105_10713T0	Z519_09901T0	90.35	114	11	0	1	114	1	114	7.00E-71	214
2	A105_06305T0	Z519_10717T0	90.36	394	37	1	1	393	1	394	0	705
1	A105_09356T0	Z519_01212T0	90.36	747	62	4	1	745	1	739	0	1269
5	A105_06850T0	Z519_06653T0	90.37	571	55	0	1	571	1	571	0	1060

48	A105_10684T0	Z519_09870T0	90.37	1288	109	2	1	1287	1	1274	0	2351
64	A105_11467T0	Z519_08750T0	90.37	654	63	0	4	657	274	927	0	1227
38	A105_12020T0	Z519_05709T0	90.37	218	20	1	161	378	3	219	3.00E-143	409
1	A105_13056T0	Z519_12120T0	90.37	405	39	0	1	405	1	405	0	756
32	A105_00308T0	Z519_00317T0	90.38	1029	78	5	1	1019	1	1018	0	1847
1	A105_05572T0	Z519_03685T0	90.38	707	60	3	1	703	1	703	0	1179
17	A105_07912T0	Z519_07750T0	90.38	634	60	1	1	633	39	672	0	1154
17	A105_08682T0	Z519_03977T0	90.38	239	23	0	48	286	5	243	3.00E-152	429
1	A105_09800T0	Z519_10420T0	90.38	873	56	2	1	845	1	873	0	1509
1	A105_06926T0	Z519_06574T0	90.39	1166	102	3	1	1166	1	1156	0	2102
1	A105_11449T0	Z519_08728T0	90.39	385	26	5	1	374	1	385	0	619
38	A105_01194T0	Z519_08461T0	90.4	896	86	0	1	896	1	896	0	1630
1	A105_04142T0	Z519_03422T0	90.4	573	55	0	1	573	1	573	0	954
1	A105_09587T0	Z519_01011T0	90.4	396	38	0	1	396	1	396	0	694
1	A105_11162T0	Z519_08914T0	90.4	521	50	0	1	521	1	521	0	989
13	A105_07096T0	Z519_06403T0	90.41	73	7	0	9	81	408	480	3.00E-40	138
1	A105_08015T0	Z519_07852T0	90.41	417	40	0	1	417	1	417	0	780
2	A105_12452T0	Z519_12659T0	90.41	876	84	0	1	876	1	876	0	1529
1	A105_00304T0	Z519_00314T0	90.42	449	43	0	1	449	1	449	0	853
1	A105_00526T0	Z519_00533T0	90.43	345	33	0	1	345	1	345	0	602
1	A105_06607T0	Z519_09057T0	90.43	794	35	1	1	794	1	753	0	1414
1	A105_08949T0	Z519_05052T0	90.43	773	70	1	1	773	1	769	0	1319
1	A105_13151T0	Z519_04372T0	90.43	397	33	1	1	397	1	392	0	692
1	A105_01262T0	Z519_08528T0	90.44	607	58	0	1	607	1	607	0	1118
1	A105_09251T0	Z519_05360T0	90.44	293	28	0	40	332	6	298	0	536
1	A105_02355T0	Z519_11616T0	90.45	220	20	1	30	249	5	223	3.00E-136	385
8	A105_03225T0	Z519_10076T0	90.45	335	12	1	1	335	1	315	0	611
2	A105_04057T0	Z519_03334T0	90.45	220	21	0	1	220	1	220	3.00E-147	412
1	A105_02816T0	Z519_07346T0	90.46	283	27	0	1	283	1	283	0	516
79	A105_06471T0	Z519_09191T0	90.46	304	29	0	194	497	1	304	0	544
2	A105_06282T0	Z519_10740T0	90.47	829	76	1	1	829	1	826	0	1527
2	A105_06484T0	Z519_09180T0	90.47	1175	103	3	1	1172	1	1169	0	2084
166	A105_08765T0	Z519_03892T0	90.47	451	42	1	17	466	17	467	0	834
1	A105_09190T0	Z519_05303T0	90.47	472	45	0	1	472	22	493	0	795
1	A105_00040T0	Z519_00040T0	90.48	588	55	1	1	588	1	587	0	1071

1	A105_00848T0	Z519_00795T0	90.48	189	18	0	1	189	1	189	3.00E-113	325
3	A105_03397T0	Z519_10218T0	90.48	189	16	1	1	187	36	224	4.00E-114	333
1	A105_09019T0	Z519_05124T0	90.48	210	12	1	1	202	1	210	6.00E-121	344
1	A105_09263T0	Z519_05370T0	90.48	504	48	0	1	504	84	587	0	940
22	A105_09582T0	Z519_01014T0	90.48	546	52	0	1	546	1	546	0	986
3	A105_12102T0	Z519_12363T0	90.48	315	30	0	1	315	1	315	0	536
2	A105_13008T0	Z519_04423T0	90.48	147	14	0	1	147	1	147	4.00E-98	285
3	A105_00538T0	Z519_00548T0	90.49	347	33	0	1	347	124	470	0	640
69	A105_04489T0	Z519_02316T0	90.49	757	72	0	7	763	28	784	0	1396
1	A105_07271T0	Z519_05849T0	90.49	536	48	3	1	534	1	535	0	862
1	A105_10114T0	Z519_04263T0	90.49	389	31	3	1	387	1	385	0	639
1	A105_13432T0	Z519_12199T0	90.49	936	85	3	132	1065	1	934	0	1716
1	A105_03116T0	Z519_09969T0	90.5	200	18	1	1	200	1	199	3.00E-118	337
1	A105_03276T0	Z519_10124T0	90.5	379	36	0	1	379	1	379	0	684
1	A105_03804T0	Z519_03125T0	90.5	695	54	1	1	695	1	683	0	1146
1	A105_05678T0	Z519_11171T0	90.5	242	23	0	5	246	5	246	2.00E-158	443
5	A105_06363T0	Z519_10677T0	90.5	421	40	0	19	439	1	421	0	783
1	A105_09940T0	Z519_04207T0	90.5	421	40	0	1	421	1	421	0	768
1	A105_06963T0	Z519_06533T0	90.51	253	24	0	1	253	1	253	1.00E-167	466
1	A105_09907T0	Z519_10312T0	90.51	759	72	0	14	772	14	772	0	1297
1	A105_11244T0	Z519_08833T0	90.51	253	24	0	1	253	25	277	3.00E-147	417
2	A105_03411T0	Z519_10233T0	90.52	538	42	2	1	533	1	534	0	954
1	A105_05137T0	Z519_08028T0	90.52	517	48	1	1	516	1	517	0	840
43	A105_08565T0	Z519_04079T0	90.53	475	42	1	34	505	75	549	0	880
1	A105_11101T0	Z519_06901T0	90.53	602	56	1	1	602	1	601	0	1080
3	A105_08737T0	Z519_03921T0	90.54	222	21	0	1	222	1	222	6.00E-129	366
1	A105_09114T0	Z519_05224T0	90.54	148	11	2	1	147	1	146	7.00E-32	113
8	A105_12595T0	Z519_05449T0	90.54	497	39	1	1	497	1	489	0	923
1	A105_07542T0	Z519_06105T0	90.55	455	23	1	1	435	1	455	0	742
1	A105_05446T0	Z519_08323T0	90.57	297	24	1	1	293	1	297	0	541
1	A105_06544T0	Z519_09123T0	90.57	53	5	0	92	144	1	53	4.00E-24	96.7
8	A105_07887T0	Z519_07718T0	90.57	350	33	0	1	350	1	350	0	658
4	A105_09993T0	Z519_04175T0	90.57	106	9	1	136	240	1	106	9.00E-45	150
2	A105_08008T0	Z519_07844T0	90.58	223	21	0	1	223	6	228	4.00E-141	397
1	A105_02902T0	Z519_12775T0	90.59	170	16	0	19	188	30	199	3.00E-108	311

1	A105_08803T0	Z519_03851T0	90.59	170	16	0	1	170	1	170	1.00E-92	269
8	A105_11352T0	Z519_02107T0	90.59	170	16	0	103	272	184	353	3.00E-103	307
1	A105_01004T0	Z519_00930T0	90.6	553	49	2	1	551	1	552	0	971
4	A105_07457T0	Z519_06024T0	90.6	298	19	1	1	289	1	298	0	522
142	A105_08672T0	Z519_03987T0	90.6	564	39	1	1	550	1	564	0	969
87	A105_10052T0	Z519_04114T0	90.6	521	45	1	3	523	109	625	0	991
2	A105_00589T0	Z519_00599T0	90.61	394	32	2	65	453	232	625	0	631
1	A105_04434T0	Z519_02266T0	90.61	362	32	1	1	360	1	362	0	611
2	A105_08432T0	Z519_05619T0	90.61	277	20	2	1	277	1	271	4.00E-167	467
1	A105_10709T0	Z519_09897T0	90.61	213	20	0	1	213	91	303	8.00E-122	350
3	A105_00278T0	Z519_00287T0	90.62	661	62	0	1	661	1	661	0	1235
1	A105_01023T0	Z519_00946T0	90.62	736	66	3	1	733	579	1314	0	1363
1	A105_04700T0	Z519_02530T0	90.62	64	6	0	1	64	1	64	5.00E-35	114
1	A105_05466T0	Z519_08342T0	90.62	224	18	1	1	224	137	357	2.00E-141	403
9	A105_10081T0	Z519_04088T0	90.62	384	36	0	1	384	1	384	0	711
3	A105_11620T0	Z519_08676T0	90.62	64	6	0	1	64	1	64	6.00E-36	118
1	A105_05614T0	Z519_03723T0	90.63	630	59	0	1	630	1	630	0	1101
1	A105_07858T0	Z519_07687T0	90.63	331	31	0	1	331	200	530	0	575
23	A105_13349T0	Z519_09320T0	90.63	758	57	1	1	744	112	869	0	1413
11	A105_06291T0	Z519_10731T0	90.64	203	14	2	1	202	1	199	1.00E-124	353
145	A105_07655T0	Z519_06220T0	90.64	203	16	1	116	315	1	203	2.00E-125	371
1	A105_08880T0	Z519_03773T0	90.64	171	15	1	1	170	1	171	1.00E-67	207
1	A105_10108T0	Z519_04257T0	90.64	598	56	0	1	598	1	598	0	1119
1	A105_01539T0	Z519_01881T0	90.65	246	23	0	24	269	1	246	1.00E-163	457
87	A105_06465T0	Z519_09195T0	90.65	524	29	2	1	504	1	524	0	978
1	A105_07100T0	Z519_06400T0	90.65	353	24	1	18	361	18	370	0	642
39	A105_09232T0	Z519_05342T0	90.65	353	23	1	1	353	1	343	0	649
4	A105_12254T0	Z519_04499T0	90.65	556	15	2	1	538	37	573	0	1028
1	A105_02789T0	Z519_07321T0	90.66	182	16	1	1	181	1	182	1.00E-110	316
1	A105_05897T0	Z519_04837T0	90.66	2173	202	1	1	2172	71	2243	0	3919
4	A105_04195T0	Z519_03475T0	90.67	536	47	3	1	535	1	534	0	930
1	A105_05594T0	Z519_03704T0	90.67	75	5	1	1	75	1	73	5.00E-31	114
1	A105_10267T0	Z519_10933T0	90.67	1898	173	2	1	1896	1	1896	0	3432
1	A105_10828T0	Z519_12240T0	90.67	611	47	3	1	607	1	605	0	1044
2	A105_11774T0	Z519_02907T0	90.67	225	16	1	1	220	1	225	3.00E-136	384

1	A105_12694T0	Z519_09814T0	90.69	290	26	1	1	289	1	290	0	546
1	A105_00071T0	Z519_00069T0	90.7	86	8	0	1	86	69	154	1.00E-54	170
4	A105_00741T0	Z519_00734T0	90.7	355	33	0	1	355	1	355	0	641
1	A105_01899T0	Z519_01567T0	90.7	43	4	0	1	43	109	151	1.00E-22	86.7
1	A105_11980T0	Z519_05752T0	90.7	86	8	0	1	86	1	86	3.00E-51	161
1	A105_12069T0	Z519_12331T0	90.7	129	12	0	1	129	1	129	4.00E-77	227
4	A105_01129T0	Z519_08402T0	90.71	280	26	0	1	280	1	280	0	533
1	A105_01470T0	Z519_11797T0	90.71	312	29	0	1	312	1	312	0	591
19	A105_02539T0	Z519_07069T0	90.71	323	4	1	1	297	1	323	0	553
1	A105_03865T0	Z519_03183T0	90.71	226	21	0	1	226	1	226	1.00E-150	421
1	A105_04292T0	Z519_03573T0	90.71	183	11	2	1	177	1	183	8.00E-25	103
1	A105_05539T0	Z519_03655T0	90.72	97	9	0	1	97	1	97	5.00E-59	178
2	A105_09287T0	Z519_01278T0	90.72	291	27	0	1	291	1	291	0	555
1	A105_11446T0	Z519_08725T0	90.72	194	13	2	1	194	1	189	4.00E-120	342
1	A105_11991T0	Z519_05741T0	90.72	442	41	0	1	442	1	442	0	798
4	A105_03607T0	Z519_09734T0	90.73	151	14	0	214	364	6	156	2.00E-98	291
1	A105_05223T0	Z519_08097T0	90.73	259	24	0	3	261	6	264	5.00E-171	479
25	A105_10569T0	Z519_12575T0	90.73	496	18	1	1	468	1	496	0	894
1	A105_13360T0	Z519_09299T0	90.73	313	29	0	1	313	319	631	0	594
1	A105_10454T0	Z519_11331T0	90.74	162	14	1	1	162	1	161	4.00E-75	224
1	A105_10832T0	Z519_12236T0	90.74	443	15	1	1	443	1	417	0	711
1	A105_11332T0	Z519_02127T0	90.74	162	11	1	1	162	1	158	4.00E-92	267
10	A105_03094T0	Z519_11944T0	90.75	292	11	1	1	276	1	292	0	556
10	A105_03541T0	Z519_09663T0	90.75	1060	97	1	1	1060	1	1059	0	1989
1	A105_08654T0	Z519_04002T0	90.75	292	23	1	1	292	35	322	3.00E-172	483
1	A105_03940T0	Z519_03237T0	90.76	249	22	1	1	249	1	248	2.00E-155	436
1	A105_08456T0	Z519_05596T0	90.76	249	23	0	3	251	2	250	1.00E-166	464
5	A105_08757T0	Z519_03900T0	90.76	249	18	1	1	249	1	244	2.00E-134	382
34	A105_10685T0	Z519_09871T0	90.76	552	51	0	1	552	1	552	0	1052
2	A105_10858T0	Z519_11396T0	90.76	249	23	0	1	249	1	249	8.00E-168	467
1	A105_12878T0	Z519_07481T0	90.76	357	33	0	1	357	1	357	0	674
1	A105_03907T0	Z519_03221T0	90.77	130	12	0	1	130	1	130	3.00E-81	237
1	A105_09111T0	Z519_05221T0	90.77	195	16	1	1	195	40	232	7.00E-118	337
2	A105_10901T0	Z519_11441T0	90.77	509	47	0	1	509	1	509	0	841
1	A105_00096T0	Z519_00095T0	90.78	206	16	1	12	217	167	369	9.00E-78	240

1	A105_01665T0	Z519_01751T0	90.78	1063	91	3	1	1063	1	1056	0	1777
1	A105_06625T0	Z519_09040T0	90.78	575	52	1	1	574	1	575	0	996
1	A105_10706T0	Z519_09892T0	90.78	282	26	0	1	282	1	282	0	525
2	A105_03772T0	Z519_03094T0	90.79	630	43	1	1	615	1	630	0	1177
1	A105_04275T0	Z519_03553T0	90.79	1270	116	1	1	1269	1	1270	0	2202
6	A105_05240T0	Z519_08113T0	90.79	532	29	1	1	532	51	562	0	998
3	A105_09749T0	Z519_10472T0	90.79	239	20	1	1	239	1	237	5.00E-156	436
1	A105_09859T0	Z519_10358T0	90.79	608	54	1	1	608	1	606	0	1019
1	A105_10266T0	Z519_10932T0	90.79	1010	92	1	1	1010	1	1009	0	1758
1	A105_01965T0	Z519_01494T0	90.8	1120	103	0	1	1120	1	1120	0	2034
1	A105_09700T0	Z519_10507T0	90.8	1163	107	0	1	1163	1	1163	0	2149
1	A105_01255T0	Z519_08521T0	90.81	283	20	2	1	278	1	282	3.00E-134	384
4	A105_09785T0	Z519_10435T0	90.81	370	32	1	1	368	1	370	0	636
1	A105_10739T0	Z519_09927T0	90.81	577	50	1	1	574	247	823	0	1070
1	A105_05553T0	Z519_03668T0	90.82	501	44	1	1	501	1	499	0	882
3	A105_06281T0	Z519_10741T0	90.83	120	10	1	1	119	1	120	1.00E-59	181
3	A105_07077T0	Z519_06424T0	90.83	120	11	0	1	120	1	120	2.00E-78	233
1	A105_09645T0	Z519_10559T0	90.83	556	47	1	1	556	1	552	0	962
1	A105_00350T0	Z519_00349T0	90.84	546	50	0	1	546	39	584	0	958
1	A105_00527T0	Z519_00534T0	90.84	273	25	0	1	273	1	273	0	514
1	A105_01011T0	Z519_00937T0	90.84	273	25	0	1	273	1	273	0	521
1	A105_05512T0	Z519_03626T0	90.84	251	23	0	1	251	1	251	4.00E-165	460
6	A105_11267T0	Z519_08810T0	90.84	382	35	0	1	382	4	385	0	652
1	A105_00031T0	Z519_00031T0	90.85	328	30	0	1	328	1	328	0	596
1	A105_02505T0	Z519_07039T0	90.85	164	15	0	1	164	1	164	4.00E-108	308
1	A105_02548T0	Z519_07079T0	90.85	164	15	0	1	164	1	164	6.00E-102	293
1	A105_04087T0	Z519_03361T0	90.85	153	14	0	1	153	490	642	6.00E-92	291
131	A105_00973T0	Z519_00910T0	90.86	558	28	1	1	558	1	535	0	1017
13	A105_04176T0	Z519_03454T0	90.86	1050	74	2	1	1050	1	1028	0	1801
3	A105_05047T0	Z519_07938T0	90.86	361	33	0	1	361	1	361	0	588
6	A105_06361T0	Z519_10679T0	90.86	175	16	0	1	175	1	175	7.00E-119	337
1	A105_11165T0	Z519_08911T0	90.86	186	13	1	1	182	1	186	4.00E-98	285
1	A105_03505T0	Z519_09629T0	90.87	624	57	0	1	624	1	624	0	1167
2	A105_12849T0	Z519_07454T0	90.87	1150	100	4	1	1150	1	1145	0	2037
10	A105_01686T0	Z519_01733T0	90.88	307	28	0	1	307	1	307	0	561

1	A105_02439T0	Z519_06971T0	90.88	373	33	1	1	373	1	372	0	625
2	A105_03084T0	Z519_11954T0	90.88	702	61	1	1	702	1	699	0	1320
1	A105_03341T0	Z519_10165T0	90.88	329	29	1	1	328	1	329	0	543
1	A105_03543T0	Z519_09665T0	90.88	329	29	1	1	329	23	350	0	616
1	A105_06303T0	Z519_10719T0	90.88	329	30	0	1	329	1	329	0	579
1	A105_08056T0	Z519_07891T0	90.88	274	25	0	1	274	226	499	4.00E-149	430
11	A105_09058T0	Z519_05170T0	90.88	340	8	1	1	340	1	317	0	629
1	A105_09314T0	Z519_01252T0	90.88	603	48	2	1	596	1	603	0	972
36	A105_03546T0	Z519_09669T0	90.89	1558	102	5	1	1558	1	1518	0	2869
1	A105_06535T0	Z519_09131T0	90.89	582	51	1	1	582	32	611	0	1084
1	A105_09561T0	Z519_01035T0	90.89	417	38	0	1	417	1	417	0	796
2	A105_12042T0	Z519_05685T0	90.89	395	36	0	1	395	1	395	0	707
1	A105_12931T0	Z519_11069T0	90.89	395	35	1	1	394	1	395	0	748
27	A105_02199T0	Z519_11776T0	90.9	659	51	2	1	659	1	650	0	1233
1	A105_00070T0	Z519_00068T0	90.91	22	2	0	1	22	1	22	1.00E-08	47
1	A105_00877T0	Z519_00825T0	90.91	77	6	1	1	77	3	78	3.00E-46	147
2	A105_01391T0	Z519_11879T0	90.91	220	18	1	1	218	1	220	2.00E-141	397
1	A105_02673T0	Z519_07206T0	90.91	550	45	3	1	549	1	546	0	949
3	A105_03690T0	Z519_03009T0	90.91	341	26	1	1	341	1	336	0	613
6	A105_04000T0	Z519_03298T0	90.91	495	43	1	56	548	54	548	0	861
1	A105_04196T0	Z519_03476T0	90.91	154	14	0	1	154	1	154	1.00E-96	278
1	A105_06653T0	Z519_09015T0	90.91	165	15	0	1	165	1	165	2.00E-101	308
1	A105_06925T0	Z519_06575T0	90.91	209	19	0	65	273	1	209	9.00E-138	390
1	A105_06932T0	Z519_06567T0	90.91	22	2	0	1	22	126	147	1.00E-06	42.7
8	A105_10003T0	Z519_04165T0	90.91	110	10	0	1	110	1	110	1.00E-73	216
7	A105_10803T0	Z519_12265T0	90.91	209	5	1	1	195	57	265	1.00E-133	389
1	A105_11071T0	Z519_06871T0	90.91	55	5	0	15	69	10	64	2.00E-32	108
1	A105_12063T0	Z519_12323T0	90.91	627	53	2	1	627	1	623	0	1051
1	A105_07533T0	Z519_06095T0	90.92	738	66	1	1	738	22	758	0	1304
40	A105_11768T0	Z519_02912T0	90.92	716	63	2	1	716	1	714	0	1289
1	A105_05517T0	Z519_03631T0	90.93	375	33	1	1	375	1	374	0	672
135	A105_06543T0	Z519_09123T0	90.93	408	37	0	1	408	60	467	0	694
1	A105_07877T0	Z519_07707T0	90.93	529	48	0	1	529	1	529	0	977
6	A105_04206T0	Z519_03485T0	90.94	309	28	0	1	309	1	309	8.00E-178	497
1	A105_07137T0	Z519_06364T0	90.94	276	22	1	1	276	1	273	5.00E-169	472

45	A105_09919T0	Z519_04221T0	90.94	342	31	0	308	649	216	557	0	608
1	A105_01516T0	Z519_01901T0	90.95	420	36	1	1	420	1	418	0	719
1	A105_02666T0	Z519_07198T0	90.95	409	33	1	1	409	1	405	0	602
26	A105_07358T0	Z519_05930T0	90.95	818	74	0	1	818	1	818	0	1556
130	A105_11393T0	Z519_02065T0	90.95	431	39	0	63	493	371	801	0	805
1	A105_11524T0	Z519_11575T0	90.95	232	21	0	1	232	1	232	3.00E-146	410
1	A105_04003T0	Z519_03301T0	90.96	188	13	1	1	188	252	435	4.00E-85	260
13	A105_12019T0	Z519_05711T0	90.96	376	25	1	1	376	1	367	0	689
1	A105_12188T0	Z519_04561T0	90.96	763	57	4	1	758	8	763	0	1319
10	A105_02801T0	Z519_07333T0	90.97	554	50	0	1	554	1	554	0	1041
3	A105_08385T0	Z519_05659T0	90.97	554	31	1	15	549	18	571	0	1050
15	A105_10717T0	Z519_09905T0	90.97	565	51	0	1	565	1	565	0	1066
1	A105_12502T0	Z519_02836T0	90.97	886	80	0	1	886	1	886	0	1667
1	A105_04854T0	Z519_02678T0	90.98	643	57	1	1	643	1	642	0	1207
7	A105_08546T0	Z519_04239T0	90.98	410	37	0	1	410	1	410	0	755
2	A105_10644T0	Z519_09832T0	90.98	377	24	1	1	377	1	367	0	575
7	A105_13172T0	Z519_04352T0	90.98	244	22	0	1	244	1	244	9.00E-169	469
1	A105_06309T0	Z519_10715T0	90.99	344	29	1	1	344	1	342	1.00E-153	438
1	A105_07562T0	Z519_06126T0	90.99	333	30	0	1	333	1	333	0	629
1	A105_09338T0	Z519_01229T0	90.99	111	6	1	1	111	1	107	2.00E-60	183
1	A105_11185T0	Z519_08896T0	90.99	322	26	1	1	322	770	1088	0	563
5	A105_02115T0	Z519_01365T0	91	500	44	1	1	500	1	499	0	955
2	A105_10034T0	Z519_04133T0	91	100	9	0	1	100	1	100	3.00E-64	192
25	A105_11598T0	Z519_08696T0	91	611	55	0	1	611	140	750	0	1152
7	A105_11649T0	Z519_08650T0	91	511	46	0	1	511	1	511	0	885
1	A105_02227T0	Z519_11748T0	91.01	278	25	0	1	278	1	278	0	526
2	A105_06051T0	Z519_04688T0	91.01	189	17	0	1	189	1	189	2.00E-126	357
1	A105_06246T0	Z519_10765T0	91.01	378	19	1	1	378	1	363	0	708
1	A105_06575T0	Z519_09090T0	91.01	1580	139	1	1	1580	1	1577	0	2836
2	A105_07568T0	Z519_06132T0	91.01	712	42	2	1	699	1	703	0	1238
10	A105_07517T0	Z519_06083T0	91.02	334	30	0	1	334	1	334	0	625
1	A105_11055T0	Z519_06856T0	91.02	401	36	0	1	401	1	401	0	714
4	A105_12885T0	Z519_07488T0	91.02	590	49	1	1	586	1	590	0	1070
1	A105_05277T0	Z519_08150T0	91.03	725	64	1	1	724	1	725	0	1317
65	A105_09617T0	Z519_10586T0	91.03	368	15	1	1	350	1	368	0	648

66	A105_05654T0	Z519_11196T0	91.04	335	30	0	236	570	243	577	0	622
2	A105_10882T0	Z519_11421T0	91.04	201	18	0	2	202	7	207	3.00E-115	330
5	A105_03224T0	Z519_10075T0	91.05	257	23	0	1	257	614	870	3.00E-165	482
28	A105_08549T0	Z519_04243T0	91.05	458	41	0	126	583	5	462	0	841
150	A105_12891T0	Z519_07495T0	91.05	514	36	1	1	504	1	514	0	972
36	A105_13245T0	Z519_12168T0	91.05	693	38	1	1	693	1	669	0	1314
39	A105_05941T0	Z519_04793T0	91.06	481	37	1	1	481	37	511	0	900
1	A105_01648T0	Z519_01768T0	91.07	717	62	1	1	717	1	715	0	975
2	A105_01828T0	Z519_01636T0	91.07	851	76	0	1	851	34	884	0	1570
2	A105_02020T0	Z519_01437T0	91.07	448	40	0	2	449	121	568	0	845
1	A105_02725T0	Z519_07260T0	91.07	224	20	0	1	224	1	224	2.00E-147	413
1	A105_04247T0	Z519_03525T0	91.07	112	10	0	1	112	1	112	1.00E-70	209
15	A105_05404T0	Z519_08278T0	91.07	291	22	1	1	291	1	287	0	518
1	A105_01645T0	Z519_01771T0	91.08	987	88	0	1	987	1	987	0	1714
2	A105_07609T0	Z519_06172T0	91.08	493	44	0	1	493	1	493	0	946
1	A105_08245T0	Z519_09466T0	91.08	493	44	0	1	493	1	493	0	922
1	A105_01013T0	Z519_00939T0	91.09	101	8	1	1	100	1	101	5.00E-56	171
1	A105_08520T0	Z519_05531T0	91.09	101	9	0	54	154	14	114	2.00E-58	179
1	A105_09064T0	Z519_05175T0	91.09	595	51	1	1	595	1	593	0	1108
7	A105_10013T0	Z519_04157T0	91.09	595	53	0	1	595	1	595	0	1132
3	A105_10674T0	Z519_09861T0	91.09	393	35	0	11	403	79	471	0	736
1	A105_11018T0	Z519_06817T0	91.09	101	9	0	34	134	1	101	1.00E-61	186
26	A105_01690T0	Z519_01730T0	91.1	730	65	0	926	1655	1	730	0	1373
2	A105_05753T0	Z519_04984T0	91.1	910	61	1	1	910	1	890	0	1706
2	A105_04623T0	Z519_02450T0	91.11	180	16	0	1	180	1	180	2.00E-110	315
12	A105_05364T0	Z519_08236T0	91.11	270	24	0	1165	1434	3	272	2.00E-170	517
4	A105_07893T0	Z519_07724T0	91.11	315	21	2	1	315	1	308	0	585
2	A105_08398T0	Z519_05645T0	91.11	225	20	0	1	225	369	593	3.00E-140	408
1	A105_02460T0	Z519_06992T0	91.12	529	43	1	1	529	1	525	0	840
1	A105_05385T0	Z519_08259T0	91.12	304	27	0	1	304	1	304	1.00E-166	468
54	A105_05845T0	Z519_04888T0	91.12	529	30	1	1	529	1	512	0	932
2	A105_09221T0	Z519_05335T0	91.12	349	31	0	1	349	1	349	0	607
12	A105_10979T0	Z519_11512T0	91.12	529	46	1	32	560	39	566	0	969
8	A105_12224T0	Z519_04529T0	91.12	484	43	0	67	550	1	484	0	921
1	A105_03892T0	Z519_03207T0	91.13	541	42	1	1	541	1	535	0	993

23	A105_06385T0	Z519_10655T0	91.13	372	33	0	1	372	1	372	0	691
1	A105_04277T0	Z519_03555T0	91.14	237	21	0	1	237	1	237	3.00E-140	397
86	A105_08943T0	Z519_05046T0	91.14	553	16	2	42	578	1	536	0	1008
1	A105_08969T0	Z519_05072T0	91.14	158	14	0	1	158	1	158	4.00E-104	299
2	A105_09179T0	Z519_05293T0	91.14	79	7	0	1	79	210	288	9.00E-45	154
1	A105_10236T0	Z519_10902T0	91.14	508	45	0	1	508	1	508	0	921
1	A105_01540T0	Z519_01880T0	91.15	192	17	0	1	192	1	192	9.00E-131	368
3	A105_13200T0	Z519_12486T0	91.15	407	29	2	1	404	1	403	0	732
1	A105_01385T0	Z519_11884T0	91.16	554	49	0	1	554	80	633	0	842
1	A105_03990T0	Z519_03288T0	91.16	679	41	1	1	660	1	679	0	1198
10	A105_10714T0	Z519_09902T0	91.16	215	17	1	32	246	1	213	3.00E-143	403
1	A105_10833T0	Z519_12235T0	91.16	498	36	3	1	497	1	491	0	803
1	A105_01515T0	Z519_01902T0	91.18	794	70	0	1	794	1	794	0	1442
49	A105_02916T0	Z519_12760T0	91.18	1111	98	0	1	1111	1	1111	0	2079
1	A105_08853T0	Z519_03800T0	91.18	748	64	2	1	748	1	746	0	1304
4	A105_11234T0	Z519_08846T0	91.18	272	24	0	1	272	1	272	0	519
5	A105_11270T0	Z519_08808T0	91.18	363	32	0	14	376	38	400	0	625
1	A105_00504T0	Z519_00510T0	91.19	919	81	0	88	1006	1	919	0	1643
3	A105_00819T0	Z519_00767T0	91.19	352	28	2	1	352	20	368	0	628
1	A105_02925T0	Z519_12751T0	91.19	227	19	1	1	227	1	226	7.00E-131	371
2	A105_04587T0	Z519_02415T0	91.19	261	23	0	1	261	1	261	3.00E-176	489
2	A105_07407T0	Z519_05979T0	91.19	295	25	1	243	537	372	665	3.00E-150	449
3	A105_09569T0	Z519_01027T0	91.19	556	46	1	1	553	1	556	0	1017
2	A105_00738T0	Z519_00731T0	91.2	534	44	2	1	533	1	532	0	731
1	A105_01823T0	Z519_01641T0	91.2	773	68	0	1	773	64	836	0	1422
1	A105_03482T0	Z519_09608T0	91.2	591	41	2	1	580	1	591	0	995
5	A105_04523T0	Z519_02351T0	91.22	820	72	0	1	820	1	820	0	1521
9	A105_00946T0	Z519_00880T0	91.23	285	25	0	1	285	1	285	5.00E-171	479
1	A105_02587T0	Z519_07117T0	91.23	365	32	0	1	365	1	365	0	630
1	A105_05523T0	Z519_03639T0	91.23	422	37	0	10	431	1	422	0	798
4	A105_05708T0	Z519_11142T0	91.23	684	56	1	1	684	1	680	0	1239
4	A105_07084T0	Z519_06416T0	91.23	171	15	0	8	178	59	229	9.00E-106	317
17	A105_10232T0	Z519_10898T0	91.23	616	49	1	29	644	452	1062	0	1165
7	A105_10768T0	Z519_12297T0	91.23	114	10	0	1	114	1	114	9.00E-74	217
1	A105_00020T0	Z519_00019T0	91.24	411	22	1	1	411	1	397	0	684

1	A105_04276T0	Z519_03554T0	91.24	1141	90	3	1	1140	1	1132	0	1946
1	A105_00239T0	Z519_00238T0	91.25	537	47	0	1	537	1	537	0	954
1	A105_01001T0	Z519_00927T0	91.25	423	35	1	1	421	1	423	0	741
1	A105_02029T0	Z519_01427T0	91.25	537	45	1	1	537	1	535	0	896
1	A105_04766T0	Z519_02593T0	91.25	160	13	1	1	160	1	159	2.00E-103	296
4	A105_06774T0	Z519_06723T0	91.25	674	27	4	1	674	1	642	0	952
39	A105_12958T0	Z519_11095T0	91.25	343	30	0	1	343	1	343	0	623
2	A105_09182T0	Z519_07744T0	91.26	206	18	0	1	206	156	361	1.00E-136	397
3	A105_10902T0	Z519_11442T0	91.26	492	42	1	1	492	1	491	0	914
2	A105_12603T0	Z519_05439T0	91.26	309	17	1	1	299	1	309	0	580
1	A105_04125T0	Z519_03403T0	91.27	126	11	0	1	126	1	126	7.00E-83	241
1	A105_04461T0	Z519_02292T0	91.27	332	25	3	21	351	19	347	1.00E-164	468
6	A105_05581T0	Z519_03694T0	91.27	229	17	1	1	226	1	229	1.00E-149	432
1	A105_05999T0	Z519_04737T0	91.27	1077	90	2	10	1086	1	1073	0	1889
1	A105_01070T0	Z519_00992T0	91.28	447	38	1	1	446	1	447	0	800
7	A105_01075T0	Z519_00995T0	91.28	195	17	0	1	195	568	762	1.00E-117	357
1	A105_02584T0	Z519_07114T0	91.28	447	39	0	1	447	1	447	0	820
1	A105_04149T0	Z519_03429T0	91.28	149	9	1	1	149	1	145	7.00E-64	194
1	A105_05434T0	Z519_08311T0	91.28	436	14	1	1	436	1	412	0	712
1	A105_08424T0	Z519_05626T0	91.28	149	13	0	1	149	1	149	2.00E-90	262
1	A105_09660T0	Z519_10544T0	91.28	436	38	0	1	436	1	436	0	843
1	A105_09936T0	Z519_04211T0	91.28	149	11	1	235	381	1	149	4.00E-84	256
2	A105_11194T0	Z519_08888T0	91.28	298	26	0	1	298	1	298	0	506
1	A105_04570T0	Z519_02397T0	91.29	310	27	0	1	310	1	310	0	548
3	A105_05528T0	Z519_03644T0	91.29	287	25	0	1	287	1	287	0	541
1	A105_09272T0	Z519_05379T0	91.29	482	40	1	1	482	1	480	0	811
1	A105_01224T0	Z519_08492T0	91.3	184	15	1	18	201	18	200	1.00E-106	307
1	A105_01861T0	Z519_01603T0	91.3	69	6	0	1	69	1	69	2.00E-41	133
1	A105_01950T0	Z519_01509T0	91.3	276	24	0	1	276	1	276	2.00E-174	486
1	A105_11278T0	Z519_08800T0	91.3	92	8	0	1	92	161	252	5.00E-56	176
1	A105_13450T0	Z519_09212T0	91.3	69	6	0	1	69	1	69	4.00E-38	132
74	A105_06010T0	Z519_04726T0	91.31	1404	122	0	1	1404	1	1404	0	2533
47	A105_10455T0	Z519_11332T0	91.31	449	37	2	1	449	1	447	0	808
69	A105_02917T0	Z519_12759T0	91.32	357	16	1	1	357	1	342	0	670
1	A105_13433T0	Z519_12198T0	91.32	357	31	0	1	357	1	357	0	645

7	A105_00932T0	Z519_00867T0	91.33	196	17	0	1	196	88	283	1.00E-131	374
1	A105_02764T0	Z519_07296T0	91.33	427	19	1	1	409	1	427	0	797
1	A105_08776T0	Z519_03880T0	91.33	196	17	0	1	196	1	196	1.00E-130	368
1	A105_12073T0	Z519_12335T0	91.33	196	17	0	4	199	18	213	3.00E-120	343
3	A105_00453T0	Z519_00460T0	91.34	335	26	2	4	336	1	334	0	551
1	A105_05386T0	Z519_08260T0	91.34	381	5	1	1	353	1	381	0	696
33	A105_10443T0	Z519_11319T0	91.34	681	59	0	2	682	61	741	0	1285
1	A105_11763T0	Z519_02917T0	91.34	254	18	1	1	254	1	250	3.00E-161	450
1	A105_05810T0	Z519_04923T0	91.35	289	25	0	1	289	1	289	3.00E-177	494
17	A105_10345T0	Z519_11016T0	91.35	451	21	1	1	451	1	433	0	845
3	A105_10814T0	Z519_12254T0	91.35	208	18	0	9	216	106	313	2.00E-138	393
1	A105_10817T0	Z519_12251T0	91.35	601	50	2	2	602	287	885	0	1106
28	A105_00971T0	Z519_00908T0	91.36	486	42	0	1	486	21	506	0	916
3	A105_02165T0	Z519_01316T0	91.36	833	71	1	1	832	1	833	0	1533
1	A105_02983T0	Z519_12046T0	91.36	544	47	0	1	544	1	544	0	1000
157	A105_05655T0	Z519_11195T0	91.36	324	28	0	183	506	4	327	0	608
1	A105_10024T0	Z519_04145T0	91.36	162	14	0	1	162	1	162	1.00E-109	312
1	A105_10607T0	Z519_12547T0	91.36	162	14	0	1	162	1	162	4.00E-109	311
3	A105_00890T0	Z519_00839T0	91.37	255	22	0	14	268	337	591	3.00E-169	487
1	A105_01854T0	Z519_01610T0	91.37	568	14	3	1	533	1	568	0	1037
1	A105_02452T0	Z519_06984T0	91.37	1263	108	1	30	1291	44	1306	0	2353
121	A105_06707T0	Z519_08962T0	91.37	742	44	2	1	742	1	722	0	1398
1	A105_06776T0	Z519_06721T0	91.37	313	21	1	1	307	1	313	3.00E-126	366
1	A105_08073T0	Z519_04327T0	91.37	197	17	0	1	197	45	241	4.00E-133	382
2	A105_05370T0	Z519_08243T0	91.38	464	32	2	1	463	193	649	0	877
1	A105_07487T0	Z519_06053T0	91.38	174	7	1	1	174	1	166	8.00E-87	254
5	A105_10738T0	Z519_09926T0	91.38	383	12	1	1	383	1	362	0	695
1	A105_02622T0	Z519_07150T0	91.39	209	18	0	1	209	1	209	3.00E-142	399
3	A105_06571T0	Z519_09094T0	91.39	546	47	0	1	546	1	546	0	997
1	A105_07936T0	Z519_07771T0	91.39	209	18	0	2	210	104	312	3.00E-129	370
1	A105_09556T0	Z519_01040T0	91.39	267	23	0	1	267	76	342	0	510
1	A105_01271T0	Z519_08537T0	91.4	430	37	0	1	430	1	430	0	815
1	A105_01818T0	Z519_01647T0	91.4	93	8	0	18	110	18	110	9.00E-55	168
1	A105_04969T0	Z519_02793T0	91.4	221	17	1	1	221	1	219	2.00E-130	370
13	A105_05191T0	Z519_08080T0	91.4	535	45	1	1	535	1	534	0	1016

150	A105_05973T0	Z519_04762T0	91.4	430	18	1	1	411	96	525	0	794
3	A105_07076T0	Z519_06425T0	91.4	442	38	0	1	442	1	442	0	827
1	A105_09149T0	Z519_05259T0	91.4	221	18	1	1	220	1	221	4.00E-105	305
4	A105_01570T0	Z519_01849T0	91.41	687	59	0	1	687	1	687	0	1225
145	A105_02144T0	Z519_01334T0	91.41	291	24	1	1	291	1	290	0	541
1	A105_02512T0	Z519_07046T0	91.41	722	62	0	1	722	1	722	0	1330
123	A105_02780T0	Z519_07312T0	91.41	524	14	2	1	493	1	524	0	983
5	A105_07309T0	Z519_05884T0	91.41	384	29	2	1	381	1	383	0	707
5	A105_04051T0	Z519_03327T0	91.42	233	16	1	36	268	56	284	2.00E-156	440
4	A105_05265T0	Z519_08138T0	91.42	723	46	3	1	723	1	707	0	1276
1	A105_06562T0	Z519_09103T0	91.42	443	38	0	1	443	1	443	0	756
2	A105_10202T0	Z519_10868T0	91.42	618	53	0	1	618	1	618	0	1144
49	A105_10968T0	Z519_11501T0	91.42	408	35	0	1	408	1	408	0	758
2	A105_05412T0	Z519_08287T0	91.43	210	18	0	1	210	1	210	3.00E-124	353
2	A105_07278T0	Z519_05856T0	91.43	607	52	0	1	607	1	607	0	1054
1	A105_02577T0	Z519_07107T0	91.44	1086	78	2	1	1085	160	1231	0	2028
27	A105_06998T0	Z519_06502T0	91.44	222	10	1	14	235	882	1094	3.00E-126	386
2	A105_02404T0	Z519_06932T0	91.45	550	41	1	1	544	1	550	0	1017
1	A105_09644T0	Z519_10560T0	91.45	491	42	0	1	491	1	491	0	931
3	A105_12409T0	Z519_06268T0	91.45	152	13	0	215	366	3	154	9.00E-95	291
2	A105_13065T0	Z519_12129T0	91.45	351	30	0	63	413	1	351	0	658
37	A105_06350T0	Z519_10689T0	91.46	527	45	0	1	527	1	527	0	972
4	A105_07647T0	Z519_06211T0	91.46	164	14	0	47	210	472	635	8.00E-100	310
2	A105_08708T0	Z519_03951T0	91.46	410	34	1	2	411	152	560	0	761
3	A105_11483T0	Z519_08762T0	91.46	164	13	1	1	163	1	164	1.00E-104	303
1	A105_00060T0	Z519_00059T0	91.47	375	32	0	1	375	1	375	0	713
27	A105_00992T0	Z519_00920T0	91.47	422	36	0	7	428	350	771	0	803
1	A105_01274T0	Z519_08539T0	91.47	129	11	0	1	129	289	417	1.00E-68	215
1	A105_02850T0	Z519_07380T0	91.47	258	22	0	1	258	1	258	8.00E-177	490
5	A105_05213T0	Z519_08087T0	91.47	563	46	1	1	563	1	561	0	1008
2	A105_07195T0	Z519_06305T0	91.47	926	72	1	1	919	1	926	0	1703
47	A105_07749T0	Z519_07563T0	91.47	1325	93	3	1	1324	1	1306	0	2379
102	A105_12139T0	Z519_09252T0	91.47	340	29	0	1	340	1	340	0	606
20	A105_13009T0	Z519_04424T0	91.47	457	30	1	12	459	111	567	0	858
1	A105_01254T0	Z519_08520T0	91.48	305	25	1	1	305	1	304	2.00E-134	387

1	A105_02486T0	Z519_07019T0	91.48	317	27	0	1	317	1	317	0	548
1	A105_03826T0	Z519_03144T0	91.48	528	39	2	1	525	1	525	0	832
1	A105_07423T0	Z519_05995T0	91.48	493	42	0	110	602	65	557	0	886
3	A105_09990T0	Z519_04179T0	91.48	786	43	2	1	775	1	773	0	1369
1	A105_10649T0	Z519_09837T0	91.48	223	18	1	1	223	246	467	2.00E-132	384
2	A105_11515T0	Z519_08793T0	91.48	352	26	1	1	352	1	348	0	606
60	A105_12943T0	Z519_11082T0	91.48	610	33	2	1	592	1	609	0	1140
1	A105_03561T0	Z519_09684T0	91.49	141	12	0	1	141	1	141	2.00E-95	274
1	A105_06665T0	Z519_09004T0	91.49	505	23	1	1	485	1	505	0	892
17	A105_05164T0	Z519_08053T0	91.5	741	49	4	1	730	1	738	0	1332
29	A105_05537T0	Z519_03653T0	91.5	1223	102	2	1	1222	1	1222	0	2261
5	A105_07939T0	Z519_07774T0	91.5	294	25	0	1	294	1	294	0	555
1	A105_11570T0	Z519_11526T0	91.5	659	54	2	1	659	83	739	0	1146
1	A105_12760T0	Z519_10819T0	91.5	306	22	1	1	302	1	306	0	549
1	A105_11248T0	Z519_08829T0	91.51	106	9	0	1	106	1	106	4.00E-63	200
1	A105_11458T0	Z519_08741T0	91.51	424	15	1	1	403	1	424	0	759
154	A105_13018T0	Z519_04435T0	91.51	518	28	1	1	518	1	502	0	978
4	A105_00611T0	Z519_00622T0	91.52	283	16	2	1	280	1	278	9.00E-167	468
9	A105_04712T0	Z519_02542T0	91.52	330	24	2	1	328	1	328	1.00E-147	422
64	A105_06834T0	Z519_06667T0	91.52	330	12	1	1	330	1	314	0	617
1	A105_06995T0	Z519_06503T0	91.52	495	10	1	1	463	1	495	0	929
5	A105_07357T0	Z519_05929T0	91.52	283	24	0	1	283	1	283	0	538
1	A105_07778T0	Z519_07593T0	91.52	283	22	1	1	283	1	281	7.00E-173	482
3	A105_12980T0	Z519_04396T0	91.52	283	24	0	1	283	1	283	2.00E-165	463
1	A105_01626T0	Z519_01791T0	91.53	791	65	2	1	791	56	844	0	1399
81	A105_01839T0	Z519_01624T0	91.53	378	2	1	1	348	1	378	0	705
1	A105_02855T0	Z519_07386T0	91.53	484	41	0	1	484	1	484	0	925
16	A105_04090T0	Z519_03363T0	91.53	826	70	0	1	826	1	826	0	1570
1	A105_05714T0	Z519_11136T0	91.53	413	32	2	1	413	1	410	0	634
20	A105_06053T0	Z519_04686T0	91.53	626	45	1	1	626	1	618	0	1114
1	A105_07736T0	Z519_07550T0	91.53	484	41	0	1	484	1	484	0	876
1	A105_07840T0	Z519_07656T0	91.53	236	16	1	1	232	1	236	6.00E-159	443
2	A105_08304T0	Z519_09520T0	91.53	236	18	1	1	236	1	234	7.00E-150	420
6	A105_11751T0	Z519_02929T0	91.53	543	46	0	1	543	1	543	0	1041
1	A105_12407T0	Z519_06270T0	91.53	614	43	4	1	610	1	609	0	884

156	A105_01490T0	Z519_01924T0	91.54	532	32	4	5	525	2	531	0	977
23	A105_07350T0	Z519_05923T0	91.54	449	38	0	1	449	86	534	0	850
1	A105_08439T0	Z519_05612T0	91.54	331	28	0	19	349	19	349	0	567
37	A105_00763T0	Z519_00755T0	91.55	639	54	0	1	639	1	639	0	1222
1	A105_07602T0	Z519_06165T0	91.55	284	24	0	1	284	1	284	1.00E-146	416
7	A105_10323T0	Z519_10989T0	91.55	414	35	0	1	414	1	414	0	787
37	A105_04635T0	Z519_02463T0	91.56	723	61	0	1	723	1	723	0	1379
16	A105_06249T0	Z519_10763T0	91.56	1173	99	0	1	1173	1	1173	0	2190
1	A105_07521T0	Z519_06086T0	91.56	533	45	0	1	533	1	533	0	934
8	A105_08684T0	Z519_03975T0	91.56	462	24	1	1	447	139	600	0	863
70	A105_09917T0	Z519_04223T0	91.56	569	27	3	1	565	1	552	0	1002
1	A105_13223T0	Z519_12510T0	91.56	320	27	0	1	320	1	320	0	607
39	A105_02122T0	Z519_01356T0	91.57	747	31	1	1	715	1	747	0	1375
2	A105_02372T0	Z519_11600T0	91.57	178	14	1	1	178	1	177	2.00E-93	272
1	A105_03294T0	Z519_10142T0	91.57	427	36	0	1	427	1	427	0	743
1	A105_05540T0	Z519_03656T0	91.57	83	7	0	1	83	1	83	4.00E-52	162
1	A105_06036T0	Z519_04702T0	91.57	534	39	3	1	532	1	530	0	937
3	A105_07390T0	Z519_05963T0	91.57	439	37	0	1	439	1	439	0	800
1	A105_08180T0	Z519_09404T0	91.57	83	7	0	65	147	314	396	1.00E-37	133
1	A105_08311T0	Z519_09526T0	91.57	807	56	3	1	798	1	804	0	1210
1	A105_10073T0	Z519_04097T0	91.57	332	28	0	1	332	1	332	0	634
1	A105_03521T0	Z519_09644T0	91.58	1092	92	0	1	1092	1	1092	0	2071
2	A105_03667T0	Z519_02988T0	91.58	202	16	1	1	202	1	201	5.00E-133	375
1	A105_04261T0	Z519_03539T0	91.58	297	25	0	1	297	35	331	0	569
1	A105_06659T0	Z519_09010T0	91.58	677	54	3	1	677	1	674	0	1151
27	A105_06699T0	Z519_08970T0	91.58	808	59	3	1	808	1	799	0	1379
1	A105_11339T0	Z519_02120T0	91.58	677	57	0	1	677	1	677	0	1271
7	A105_00415T0	Z519_00416T0	91.59	107	9	0	1	107	1	107	1.00E-68	203
1	A105_01875T0	Z519_01589T0	91.59	333	27	1	50	381	10	342	0	622
5	A105_07310T0	Z519_05885T0	91.59	571	48	0	69	639	18	588	0	1093
2	A105_08681T0	Z519_03978T0	91.59	333	25	2	6	335	6	338	0	602
1	A105_12639T0	Z519_05398T0	91.59	214	18	0	1	214	1	214	1.00E-132	374
1	A105_00387T0	Z519_00389T0	91.6	131	11	0	1	131	1	131	2.00E-84	245
5	A105_07132T0	Z519_06369T0	91.6	512	43	0	1	512	1	512	0	789
1	A105_07557T0	Z519_06120T0	91.6	964	57	4	1	955	1	949	0	1553

1	A105_08332T0	Z519_09546T0	91.6	262	22	0	1	262	1	262	8.00E-179	496
1	A105_09104T0	Z519_05214T0	91.6	702	55	2	1	699	1	701	0	1279
2	A105_13319T0	Z519_05014T0	91.6	881	68	2	26	902	26	904	0	1585
1	A105_00342T0	Z519_00347T0	91.61	417	35	0	1	417	1	417	0	777
1	A105_01740T0	Z519_01698T0	91.61	560	47	0	1	560	1	560	0	873
3	A105_04042T0	Z519_03324T0	91.61	1037	87	0	1	1037	1	1037	0	1949
1	A105_06236T0	Z519_10775T0	91.61	143	12	0	1	143	1	143	3.00E-93	269
1	A105_10132T0	Z519_04282T0	91.61	155	13	0	1	155	1	155	6.00E-103	295
41	A105_10528T0	Z519_12616T0	91.61	822	69	0	1	822	1	822	0	1426
2	A105_11005T0	Z519_06801T0	91.61	441	37	0	1	441	1	441	0	820
1	A105_11240T0	Z519_08837T0	91.61	274	21	1	1	272	1	274	1.00E-173	484
85	A105_12649T0	Z519_05387T0	91.62	573	24	1	6	554	3	575	0	1069
88	A105_13394T0	Z519_04231T0	91.62	537	16	1	1	508	1	537	0	1003
1	A105_02011T0	Z519_01446T0	91.63	442	36	1	1	441	1	442	0	798
1	A105_03328T0	Z519_10152T0	91.63	478	40	0	1	478	54	531	0	762
2	A105_03687T0	Z519_03006T0	91.63	227	19	0	1	227	1	227	8.00E-154	429
2	A105_09808T0	Z519_10412T0	91.63	418	35	0	1	418	59	476	0	802
1	A105_13077T0	Z519_11212T0	91.63	454	37	1	1	454	1	453	0	845
1	A105_00481T0	Z519_00488T0	91.64	275	23	0	1	275	1	275	0	521
39	A105_02778T0	Z519_07310T0	91.64	706	59	0	1	706	1	706	0	1342
2	A105_02939T0	Z519_12089T0	91.64	347	29	0	1	347	42	388	0	648
3	A105_10429T0	Z519_11304T0	91.64	598	45	1	1	593	1	598	0	1124
1	A105_10225T0	Z519_10891T0	91.65	455	20	2	1	437	1	455	0	835
32	A105_11613T0	Z519_08683T0	91.65	683	57	0	1	683	91	773	0	1318
1	A105_11644T0	Z519_08654T0	91.65	395	32	1	1	395	84	477	0	712
39	A105_02543T0	Z519_07074T0	91.66	719	60	0	1	719	1	719	0	1368
1	A105_04131T0	Z519_03410T0	91.66	923	77	0	1	923	1	923	0	1659
2	A105_00055T0	Z519_00054T0	91.67	144	12	0	6	149	148	291	9.00E-92	274
35	A105_00703T0	Z519_00697T0	91.67	444	37	0	1	444	1	444	0	854
3	A105_02310T0	Z519_11665T0	91.67	432	34	2	1	431	11	441	0	808
1	A105_02487T0	Z519_07020T0	91.67	120	10	0	13	132	1	120	3.00E-64	194
4	A105_02754T0	Z519_07286T0	91.67	216	12	2	1	214	1	212	1.00E-134	380
1	A105_02809T0	Z519_07340T0	91.67	204	17	0	1	204	1	204	1.00E-129	366
1	A105_03526T0	Z519_09649T0	91.67	204	17	0	1	204	1	204	1.00E-138	389
1	A105_04757T0	Z519_02585T0	91.67	216	18	0	1	216	1	216	1.00E-126	359

2	A105_05936T0	Z519_04798T0	91.67	228	19	0	1	228	1	228	2.00E-129	367
2	A105_07399T0	Z519_05971T0	91.67	120	6	1	21	140	20	135	6.00E-77	227
1	A105_09717T0	Z519_10491T0	91.67	264	22	0	3	266	2	265	5.00E-164	458
1	A105_10408T0	Z519_11285T0	91.67	228	19	0	1	228	10	237	1.00E-157	439
1	A105_10759T0	Z519_09949T0	91.67	600	45	1	1	595	1	600	0	1120
1	A105_11291T0	Z519_02149T0	91.67	108	8	1	1	107	1	108	1.00E-65	196
2	A105_12012T0	Z519_05718T0	91.67	132	8	2	1	131	1	130	7.00E-73	216
1	A105_12061T0	Z519_12321T0	91.67	732	58	3	1	731	1	730	0	1301
155	A105_11728T0	Z519_02952T0	91.68	889	66	2	1	881	1	889	0	1677
1	A105_00458T0	Z519_00465T0	91.69	361	28	1	1	361	1	359	0	600
1	A105_03169T0	Z519_10019T0	91.69	421	35	0	1	421	1	421	0	760
3	A105_06317T0	Z519_10708T0	91.69	421	35	0	1	421	1	421	0	779
1	A105_07367T0	Z519_05939T0	91.69	337	28	0	1	337	1	337	0	596
4	A105_03586T0	Z519_09712T0	91.7	265	22	0	1	265	1	265	1.00E-180	501
3	A105_04162T0	Z519_03441T0	91.7	554	46	0	1	554	1	554	0	1038
13	A105_04855T0	Z519_02679T0	91.7	277	23	0	1	277	1	277	0	528
5	A105_08442T0	Z519_05610T0	91.7	289	22	1	1	289	1	287	5.00E-158	445
47	A105_09123T0	Z519_05234T0	91.7	1132	94	0	1	1132	1	1132	0	2108
1	A105_10498T0	Z519_11374T0	91.7	253	20	1	1	252	1	253	5.00E-168	468
1	A105_01443T0	Z519_11825T0	91.71	386	31	1	1	385	1	386	0	677
53	A105_03065T0	Z519_11973T0	91.71	1472	96	3	1	1472	1	1446	0	2672
3	A105_10258T0	Z519_10923T0	91.71	386	32	0	1	386	1	386	0	670
1	A105_04732T0	Z519_02561T0	91.72	169	12	2	7	173	1	169	2.00E-109	312
2	A105_06510T0	Z519_09155T0	91.72	326	27	0	202	527	1	326	0	617
1	A105_08413T0	Z519_05637T0	91.72	314	25	1	1	313	1	314	0	547
1	A105_09638T0	Z519_10566T0	91.72	302	25	0	1	302	1	302	0	559
3	A105_10406T0	Z519_11283T0	91.72	966	42	3	1	960	1	934	0	1642
1	A105_13069T0	Z519_12133T0	91.72	580	40	1	1	580	1	572	0	1021
3	A105_00125T0	Z519_00126T0	91.73	375	31	0	1	375	1	375	0	667
1	A105_00137T0	Z519_00138T0	91.73	399	29	2	1	398	1	396	0	746
7	A105_03499T0	Z519_09623T0	91.73	653	40	3	16	663	16	659	0	1107
38	A105_08191T0	Z519_09415T0	91.73	798	62	3	4	798	52	848	0	1496
1	A105_09646T0	Z519_10558T0	91.73	133	11	0	1	133	1	133	3.00E-70	209
4	A105_12415T0	Z519_06262T0	91.73	520	43	0	1	520	1	520	0	931
1	A105_12972T0	Z519_04390T0	91.73	254	21	0	1	254	1	254	1.00E-159	446

1	A105_00707T0	Z519_00701T0	91.74	605	39	2	1	595	1	604	0	1127
26	A105_00986T0	Z519_00915T0	91.74	109	9	0	183	291	58	166	6.00E-66	207
1	A105_05579T0	Z519_03692T0	91.74	702	56	1	1	700	1	702	0	1299
1	A105_00835T0	Z519_00781T0	91.75	315	25	1	1	314	1	315	0	568
1	A105_03372T0	Z519_10193T0	91.75	315	24	1	1	313	1	315	0	522
4	A105_08243T0	Z519_09463T0	91.75	194	16	0	1	194	1	194	1.00E-123	350
1	A105_01060T0	Z519_00982T0	91.76	170	14	0	1	170	1	170	5.00E-96	278
1	A105_01966T0	Z519_01493T0	91.76	898	74	0	1	898	1	898	0	1690
1	A105_02015T0	Z519_01442T0	91.76	340	19	1	1	340	1	331	0	563
2	A105_03476T0	Z519_09602T0	91.76	267	19	2	1	266	1	265	6.00E-176	489
1	A105_04159T0	Z519_03438T0	91.76	352	29	0	1	352	109	460	0	674
1	A105_06247T0	Z519_10764T0	91.76	182	15	0	1	182	1	182	2.00E-121	354
1	A105_08213T0	Z519_09435T0	91.76	182	15	0	12	193	1	182	9.00E-121	342
1	A105_09423T0	Z519_01163T0	91.76	2062	169	1	1	2061	1	2062	0	3879
38	A105_13244T0	Z519_12169T0	91.76	364	30	0	3	366	1	364	0	678
1	A105_04624T0	Z519_02451T0	91.77	498	41	0	1	498	114	611	0	896
3	A105_00723T0	Z519_00715T0	91.78	353	29	0	1	353	210	562	0	658
1	A105_02461T0	Z519_06993T0	91.78	219	18	0	1	219	1	219	6.00E-147	411
1	A105_02475T0	Z519_07008T0	91.78	1071	75	1	1	1058	1	1071	0	1908
2	A105_04266T0	Z519_03543T0	91.78	365	30	0	1	365	105	469	0	692
2	A105_07226T0	Z519_05803T0	91.78	1180	96	1	1	1180	172	1350	0	2149
59	A105_08580T0	Z519_04065T0	91.78	584	48	0	1	584	229	812	0	1042
2	A105_09222T0	Z519_05336T0	91.78	146	11	1	122	267	1	145	4.00E-92	271
4	A105_09870T0	Z519_10346T0	91.78	73	6	0	135	207	1	73	4.00E-43	149
2	A105_10615T0	Z519_11102T0	91.78	292	20	2	1	291	1	289	2.00E-177	494
1	A105_02444T0	Z519_06976T0	91.79	524	43	0	1	524	1	524	0	862
3	A105_03331T0	Z519_10155T0	91.79	341	24	1	1	341	1	337	0	614
7	A105_04853T0	Z519_02677T0	91.79	585	48	0	2	586	81	665	0	1095
18	A105_05518T0	Z519_03632T0	91.79	414	34	0	1	414	1	414	0	797
46	A105_07904T0	Z519_07734T0	91.79	670	55	0	1	670	47	716	0	1276
2	A105_10210T0	Z519_10876T0	91.79	609	40	3	1	608	38	637	0	1047
86	A105_11008T0	Z519_06806T0	91.79	487	19	1	1	466	1	487	0	879
1	A105_11041T0	Z519_06841T0	91.79	780	64	0	1	780	1	780	0	1473
1	A105_11998T0	Z519_05733T0	91.79	268	22	0	2	269	8	275	0	508
5	A105_12480T0	Z519_02814T0	91.79	585	47	1	1	584	78	662	0	1069

1	A105_04779T0	Z519_02606T0	91.8	744	59	1	1	742	1	744	0	1365
1	A105_05726T0	Z519_11125T0	91.8	854	67	1	1	854	1	851	0	1518
1	A105_11507T0	Z519_08785T0	91.8	366	30	0	1	366	1	366	0	676
1	A105_12240T0	Z519_04512T0	91.8	512	42	0	19	530	1	512	0	978
1	A105_00364T0	Z519_00363T0	91.81	354	11	1	1	336	1	354	0	648
1	A105_04783T0	Z519_02610T0	91.81	415	33	1	1	414	1	415	0	676
1	A105_07657T0	Z519_06222T0	91.81	342	28	0	1	342	1	342	0	657
1	A105_10354T0	Z519_11025T0	91.81	342	28	0	1	342	37	378	0	658
1	A105_10915T0	Z519_11456T0	91.81	403	33	0	1	403	6	408	0	745
3	A105_11457T0	Z519_08740T0	91.81	403	26	1	1	403	1	396	0	750
9	A105_13212T0	Z519_12498T0	91.81	720	57	1	1	718	1	720	0	1332
1	A105_05869T0	Z519_04865T0	91.82	220	18	0	1	220	1	220	9.00E-149	416
1	A105_06002T0	Z519_04734T0	91.82	941	73	3	1	938	1	940	0	1606
1	A105_06839T0	Z519_06663T0	91.82	391	29	2	1	390	1	389	0	634
9	A105_08561T0	Z519_04083T0	91.82	428	35	0	15	442	45	472	0	817
1	A105_10369T0	Z519_11042T0	91.82	220	18	0	1	220	1	220	7.00E-130	368
1	A105_10790T0	Z519_12276T0	91.82	538	39	2	1	537	36	569	0	963
1	A105_11281T0	Z519_08797T0	91.82	159	13	0	1	159	1	159	5.00E-109	310
6	A105_11477T0	Z519_08758T0	91.82	599	49	0	1	599	75	673	0	1122
6	A105_01210T0	Z519_08477T0	91.83	502	19	1	1	502	1	480	0	941
1	A105_02459T0	Z519_06991T0	91.83	845	67	2	1	845	1	843	0	1294
7	A105_08464T0	Z519_05588T0	91.83	404	27	2	1	404	1	398	0	714
1	A105_09017T0	Z519_05122T0	91.83	563	45	1	1	562	1	563	0	962
1	A105_02924T0	Z519_12752T0	91.84	343	27	1	29	371	13	354	0	544
1	A105_04108T0	Z519_03381T0	91.84	821	67	0	1	821	102	922	0	1393
2	A105_06747T0	Z519_06762T0	91.84	147	12	0	1	147	1	147	6.00E-93	268
54	A105_07347T0	Z519_05920T0	91.84	429	35	0	22	450	22	450	0	819
3	A105_13311T0	Z519_05022T0	91.84	245	20	0	1	245	1	245	8.00E-162	451
1	A105_00959T0	Z519_00893T0	91.85	626	51	0	1	626	1	626	0	1175
19	A105_04939T0	Z519_02763T0	91.85	1264	101	1	1	1262	1	1264	0	2356
1	A105_07422T0	Z519_05994T0	91.85	626	46	2	1	622	1	625	0	999
1	A105_09295T0	Z519_01270T0	91.85	319	25	1	1	319	1	318	0	607
1	A105_11431T0	Z519_08711T0	91.85	184	11	1	1	184	1	180	1.00E-109	314
1	A105_05925T0	Z519_04809T0	91.86	307	18	2	1	300	1	307	0	556
2	A105_08646T0	Z519_04012T0	91.86	172	14	0	1	172	1	172	3.00E-112	327

1	A105_10192T0	Z519_10857T0	91.86	221	9	2	1	213	2	221	5.00E-135	381
43	A105_12446T0	Z519_12665T0	91.86	295	23	1	1600	1894	45	338	0	563
32	A105_02935T0	Z519_12743T0	91.87	1513	96	1	1	1486	1	1513	0	2862
1	A105_07952T0	Z519_07794T0	91.87	418	34	0	1	418	1	418	0	779
1	A105_08480T0	Z519_05572T0	91.87	369	30	0	1	369	1	369	0	710
5	A105_12105T0	Z519_12366T0	91.87	369	30	0	1	369	1	369	0	690
1	A105_13228T0	Z519_12514T0	91.87	492	37	1	1	489	210	701	0	928
1	A105_09672T0	Z519_10534T0	91.88	394	32	0	1	394	1	394	0	748
1	A105_10658T0	Z519_09845T0	91.88	308	18	1	1	301	1	308	1.00E-173	486
3	A105_11498T0	Z519_08776T0	91.88	308	24	1	1	307	1	308	0	587
1	A105_11669T0	Z519_08627T0	91.88	517	41	1	1	517	1	516	0	865
1	A105_12262T0	Z519_04491T0	91.88	345	23	2	1	344	1	341	0	574
22	A105_13001T0	Z519_04416T0	91.88	591	23	1	1	566	1	591	0	1070
4	A105_00656T0	Z519_00654T0	91.89	481	32	1	2	475	55	535	0	874
87	A105_05969T0	Z519_04766T0	91.89	296	24	0	1	296	1	296	0	573
9	A105_07008T0	Z519_06492T0	91.89	530	42	1	1	530	85	613	0	1001
3	A105_08726T0	Z519_03932T0	91.89	444	36	0	1	444	1	444	0	784
66	A105_10009T0	Z519_04158T0	91.89	629	29	1	1	629	1	607	0	1117
1	A105_11455T0	Z519_08738T0	91.89	518	37	1	1	513	1	518	0	672
1	A105_11482T0	Z519_08760T0	91.89	937	74	2	1	936	12	947	0	1787
2	A105_12219T0	Z519_04535T0	91.89	111	9	0	66	176	1	111	5.00E-69	207
1	A105_12397T0	Z519_06278T0	91.9	1309	105	1	1	1308	195	1503	0	2428
1	A105_12869T0	Z519_07472T0	91.9	531	43	0	1	531	13	543	0	999
95	A105_07355T0	Z519_05927T0	91.91	507	41	0	1	507	1	507	0	959
1	A105_07953T0	Z519_07795T0	91.91	482	37	2	1	482	1	480	0	848
1	A105_11509T0	Z519_08787T0	91.91	408	23	2	1	402	1	404	0	723
1	A105_00019T0	Z519_00018T0	91.92	260	21	0	1	260	1	260	5.00E-175	486
1	A105_00751T0	Z519_00744T0	91.92	198	16	0	203	400	129	326	1.00E-109	328
1	A105_01235T0	Z519_08502T0	91.92	458	37	0	1	458	1	458	0	753
16	A105_01361T0	Z519_11907T0	91.92	433	13	1	1	411	1	433	0	823
1	A105_05232T0	Z519_02008T0	91.92	99	1	1	45	143	1	92	4.00E-59	181
3	A105_12859T0	Z519_07462T0	91.92	334	14	1	1	321	183	516	0	611
3	A105_03517T0	Z519_09641T0	91.93	347	28	0	1	347	1	347	0	656
5	A105_03641T0	Z519_09770T0	91.93	483	39	0	1	483	1	483	0	904
1	A105_04663T0	Z519_02492T0	91.93	1375	110	1	3	1377	55	1428	0	2360

1	A105_11450T0	Z519_08729T0	91.93	285	23	0	1	285	1	285	0	514
1	A105_01885T0	Z519_01579T0	91.94	360	29	0	1	360	1	360	0	669
1	A105_02076T0	Z519_01402T0	91.94	806	58	3	1	806	2	800	0	1420
2	A105_08781T0	Z519_03876T0	91.94	186	14	1	1	185	1	186	7.00E-94	274
11	A105_09331T0	Z519_01235T0	91.94	633	50	1	1	633	1	632	0	1193
1	A105_09441T0	Z519_01145T0	91.94	360	28	1	1	360	1	359	0	671
1	A105_11495T0	Z519_08773T0	91.94	360	29	0	1	360	1	360	0	685
15	A105_11564T0	Z519_11532T0	91.94	360	29	0	1	360	243	602	0	670
1	A105_13118T0	Z519_11244T0	91.94	608	49	0	9	616	14	621	0	1159
1	A105_02179T0	Z519_01299T0	91.95	646	35	2	1	646	1	629	0	1039
1	A105_02419T0	Z519_06947T0	91.95	919	51	3	1	919	1	896	0	1666
4	A105_05426T0	Z519_08301T0	91.95	236	9	1	1	236	67	292	7.00E-146	412
41	A105_05701T0	Z519_11149T0	91.95	559	41	2	1	555	1	559	0	1040
4	A105_07364T0	Z519_05936T0	91.95	348	28	0	1	348	1	348	0	649
10	A105_08224T0	Z519_09446T0	91.95	236	19	0	1	236	150	385	2.00E-155	440
2	A105_08436T0	Z519_05615T0	91.95	174	14	0	1	174	1	174	4.00E-112	319
1	A105_08848T0	Z519_03805T0	91.95	348	24	2	1	348	1	344	0	520
9	A105_09791T0	Z519_10429T0	91.95	559	45	0	1	559	1	559	0	1062
37	A105_12990T0	Z519_04407T0	91.95	149	12	0	1	149	266	414	1.00E-94	282
1	A105_00355T0	Z519_00353T0	91.96	112	8	1	1	111	6	117	5.00E-70	207
1	A105_05267T0	Z519_08140T0	91.96	448	35	1	1	448	1	447	0	837
1	A105_06803T0	Z519_06700T0	91.96	908	73	0	36	943	15	922	0	1714
113	A105_09931T0	Z519_04216T0	91.96	547	42	1	1	545	1	547	0	994
1	A105_01852T0	Z519_01612T0	91.97	1170	53	3	1	1170	1	1129	0	1971
1	A105_07595T0	Z519_06158T0	91.97	386	31	0	1	386	1	386	0	717
1	A105_00273T0	Z519_00282T0	91.98	798	60	2	1	795	1	797	0	1484
1	A105_05459T0	Z519_08336T0	91.98	686	55	0	1	686	1	686	0	1223
10	A105_08989T0	Z519_05093T0	91.98	499	28	1	7	505	3	489	0	922
153	A105_09470T0	Z519_01116T0	91.98	262	21	0	1	262	1	262	3.00E-173	481
4	A105_12156T0	Z519_09269T0	91.98	399	31	1	1	399	1	398	0	759
4	A105_13061T0	Z519_12125T0	91.98	187	15	0	1	187	1	187	2.00E-121	344
2	A105_01024T0	Z519_00947T0	91.99	737	59	0	1	737	25	761	0	1396
1	A105_03946T0	Z519_03243T0	91.99	337	27	0	22	358	27	363	0	638
3	A105_04124T0	Z519_03402T0	91.99	1124	82	2	1	1120	1	1120	0	2103
1	A105_04814T0	Z519_02639T0	91.99	587	45	1	1	585	1	587	0	1083

1	A105_04955T0	Z519_02779T0	91.99	599	48	0	1	599	1	599	0	1120
1	A105_05900T0	Z519_04834T0	91.99	412	33	0	1	412	1	412	0	734
1	A105_07476T0	Z519_06044T0	91.99	549	43	1	1	549	1	548	0	974
35	A105_09490T0	Z519_01093T0	91.99	674	54	0	1	674	1	674	0	1303
9	A105_12579T0	Z519_05464T0	91.99	599	46	1	1	599	1	597	0	1132
1	A105_13341T0	Z519_09328T0	91.99	1411	102	3	1	1400	1	1411	0	2368
1	A105_01405T0	Z519_11862T0	92	1225	80	3	1	1208	1	1224	0	2214
2	A105_05482T0	Z519_08357T0	92	50	4	0	80	129	1	50	1.00E-26	96.7
1	A105_06872T0	Z519_06628T0	92	125	10	0	1	125	1	125	3.00E-79	234
1	A105_07035T0	Z519_06467T0	92	125	10	0	65	189	1	125	7.00E-80	236
1	A105_09908T0	Z519_10311T0	92	150	12	0	1	150	1	150	3.00E-66	201
5	A105_10340T0	Z519_11010T0	92	200	14	2	183	382	1	198	3.00E-127	367
1	A105_11202T0	Z519_08880T0	92	200	16	0	21	220	486	685	2.00E-133	393
6	A105_01336T0	Z519_11928T0	92.01	488	38	1	259	746	1	487	0	927
1	A105_03879T0	Z519_03197T0	92.01	388	31	0	1	388	1	388	0	756
1	A105_04956T0	Z519_02780T0	92.01	363	28	1	1	363	1	362	0	665
1	A105_07328T0	Z519_05900T0	92.01	613	47	1	1	613	1	611	0	1081
1	A105_07394T0	Z519_05966T0	92.01	538	43	0	1	538	1	538	0	1016
2	A105_09061T0	Z519_05173T0	92.01	488	37	2	119	606	1	486	0	828
57	A105_09204T0	Z519_05318T0	92.01	588	20	1	1	561	1	588	0	1113
2	A105_10881T0	Z519_11420T0	92.01	663	53	0	1	663	1	663	0	1168
4	A105_13351T0	Z519_09309T0	92.01	288	22	1	1	288	1	287	0	534
20	A105_13426T0	Z519_12303T0	92.01	388	31	0	1	388	1	388	0	730
138	A105_00972T0	Z519_00909T0	92.02	263	21	0	1	263	1	263	0	503
10	A105_01779T0	Z519_01686T0	92.02	401	32	0	1	401	127	527	0	766
2	A105_02309T0	Z519_11667T0	92.02	238	19	0	1	238	1	238	2.00E-162	452
1	A105_02873T0	Z519_07404T0	92.02	263	21	0	1	263	1	263	5.00E-165	461
5	A105_03278T0	Z519_10126T0	92.02	376	27	1	1	376	1	373	0	709
1	A105_03408T0	Z519_10229T0	92.02	727	58	0	1	727	194	920	0	1337
2	A105_08321T0	Z519_09536T0	92.02	213	17	0	1	213	1	213	8.00E-145	407
1	A105_11043T0	Z519_06843T0	92.02	213	17	0	11	223	172	384	3.00E-131	378
1	A105_12386T0	Z519_06290T0	92.02	163	13	0	1	163	1	163	4.00E-104	298
8	A105_12625T0	Z519_05415T0	92.02	677	54	0	1	677	62	738	0	1274
1	A105_05094T0	Z519_07984T0	92.03	414	18	1	1	414	1	399	0	786
1	A105_05378T0	Z519_08252T0	92.03	364	29	0	1	364	1	364	0	687

1	A105_05532T0	Z519_03648T0	92.03	954	74	2	1	953	1	953	0	1644
192	A105_06842T0	Z519_06660T0	92.03	276	22	0	1	276	1	276	0	527
5	A105_07964T0	Z519_07803T0	92.03	464	16	3	19	462	19	481	0	810
17	A105_08116T0	Z519_09340T0	92.03	1029	80	1	1	1029	1	1027	0	1967
39	A105_00237T0	Z519_00236T0	92.04	377	7	1	1	354	1	377	0	676
1	A105_01517T0	Z519_01900T0	92.04	113	9	0	1	113	3	115	1.00E-73	218
12	A105_03221T0	Z519_10072T0	92.04	314	25	0	39	352	3	316	0	601
1	A105_06408T0	Z519_10633T0	92.04	4864	383	2	1	4861	1	4863	0	8964
8	A105_08786T0	Z519_03871T0	92.04	339	27	0	1	339	1	339	0	649
1	A105_01814T0	Z519_01651T0	92.05	239	19	0	1	239	1	239	1.00E-111	325
1	A105_02571T0	Z519_07101T0	92.05	440	34	1	1	440	1	439	0	711
3	A105_06122T0	Z519_04614T0	92.05	478	34	3	1	475	1	477	0	773
16	A105_06444T0	Z519_10597T0	92.05	352	24	1	15	366	1	348	0	672
1	A105_09328T0	Z519_01237T0	92.05	302	20	2	1	302	1	298	1.00E-173	486
1	A105_10601T0	Z519_12552T0	92.05	176	14	0	1	176	1	176	3.00E-103	297
4	A105_12808T0	Z519_12781T0	92.05	264	21	0	1	264	41	304	9.00E-180	500
1	A105_12920T0	Z519_11059T0	92.05	566	44	1	1	565	1	566	0	1048
5	A105_00211T0	Z519_00212T0	92.06	277	21	1	1	277	1	276	0	518
12	A105_02157T0	Z519_01325T0	92.06	428	31	2	1	426	1	427	0	813
104	A105_03540T0	Z519_09662T0	92.06	567	22	1	1	567	1	544	0	1090
1	A105_04865T0	Z519_02689T0	92.06	126	10	0	5	130	2	127	5.00E-43	140
1	A105_08759T0	Z519_03898T0	92.06	214	16	1	1	213	1	214	5.00E-136	383
1	A105_10718T0	Z519_09906T0	92.06	1109	79	2	1	1109	1	1100	0	2031
1	A105_11711T0	Z519_02968T0	92.06	1033	77	3	1	1028	1	1033	0	1736
6	A105_02477T0	Z519_12709T0	92.07	492	39	0	1	492	1	492	0	931
46	A105_03965T0	Z519_03264T0	92.07	1047	66	4	1	1044	1	1033	0	1821
4	A105_06411T0	Z519_10630T0	92.07	290	23	0	1	290	1	290	0	546
1	A105_06778T0	Z519_06719T0	92.07	290	23	0	1	290	1	290	0	558
1	A105_07750T0	Z519_07564T0	92.07	328	26	0	1	328	1	328	0	575
4	A105_08268T0	Z519_09490T0	92.07	227	18	0	1	227	1	227	3.00E-152	426
1	A105_08915T0	Z519_03738T0	92.07	328	26	0	1	328	1	328	0	616
10	A105_04618T0	Z519_02445T0	92.08	543	35	1	1	535	1	543	0	1038
1	A105_10669T0	Z519_09856T0	92.08	543	43	0	1	543	1	543	0	1023
119	A105_12532T0	Z519_02863T0	92.08	265	21	0	1	265	1	265	0	511
1	A105_01675T0	Z519_01741T0	92.09	177	13	1	1	177	1	176	4.00E-104	300

1	A105_02617T0	Z519_07145T0	92.09	455	36	0	1	455	1	455	0	795
10	A105_12091T0	Z519_12352T0	92.09	177	14	0	43	219	1	177	3.00E-110	317
3	A105_00583T0	Z519_00593T0	92.1	861	28	2	6	863	1	824	0	1606
1	A105_03422T0	Z519_10244T0	92.1	772	43	1	1	754	1	772	0	1356
2	A105_04123T0	Z519_03401T0	92.1	544	43	0	1	544	1	544	0	1011
1	A105_05784T0	Z519_04948T0	92.1	443	35	0	1	443	1	443	0	787
140	A105_06887T0	Z519_06612T0	92.1	291	4	2	1	291	1	272	0	541
50	A105_12565T0	Z519_05481T0	92.1	633	48	2	50	681	141	772	0	1203
4	A105_00046T0	Z519_00046T0	92.11	596	32	1	12	592	12	607	0	1075
40	A105_00768T0	Z519_00761T0	92.11	355	28	0	176	530	2	356	0	650
2	A105_01012T0	Z519_00938T0	92.11	456	36	0	55	510	1	456	0	867
1	A105_02093T0	Z519_01386T0	92.11	304	7	1	1	304	1	287	0	575
1	A105_02860T0	Z519_07391T0	92.11	228	18	0	1	228	137	364	2.00E-139	398
6	A105_03695T0	Z519_03014T0	92.11	228	18	0	1	228	265	492	1.00E-151	434
2	A105_03816T0	Z519_03135T0	92.11	912	69	1	1	909	1	912	0	1680
5	A105_04364T0	Z519_02191T0	92.11	304	24	0	1	304	10	313	0	580
3	A105_06127T0	Z519_04610T0	92.11	304	16	1	1	304	1	296	0	579
1	A105_08483T0	Z519_05569T0	92.11	570	44	1	1	570	1	569	0	964
7	A105_10505T0	Z519_11383T0	92.11	342	16	1	147	488	1	331	0	623
25	A105_12947T0	Z519_11086T0	92.11	2105	166	0	1	2105	1	2105	0	3963
37	A105_13320T0	Z519_05013T0	92.11	836	59	1	1	829	1	836	0	1550
1	A105_08402T0	Z519_05642T0	92.12	419	25	2	1	419	1	411	0	795
1	A105_08834T0	Z519_03819T0	92.12	292	23	0	11	302	14	305	1.00E-174	488
1	A105_07228T0	Z519_05805T0	92.13	216	17	0	1	216	1	216	3.00E-144	404
1	A105_08764T0	Z519_03893T0	92.13	1105	80	2	1	1101	1	1102	0	1935
44	A105_10065T0	Z519_04106T0	92.13	521	34	1	43	563	18	531	0	978
3	A105_12642T0	Z519_05395T0	92.13	267	21	0	1	267	264	530	0	513
1	A105_13285T0	Z519_12148T0	92.13	343	27	0	19	361	19	361	0	637
1	A105_01845T0	Z519_01618T0	92.14	407	32	0	1	407	1	407	0	711
4	A105_10311T0	Z519_10976T0	92.14	1183	90	1	1	1183	1	1180	0	2237
1	A105_10427T0	Z519_11303T0	92.14	1819	143	0	1	1819	1	1819	0	3259
2	A105_11058T0	Z519_06859T0	92.14	280	9	1	1	267	1	280	0	510
1	A105_07262T0	Z519_05841T0	92.15	522	40	1	1	522	1	521	0	970
1	A105_08950T0	Z519_05053T0	92.15	433	34	0	1	433	1	433	0	774
17	A105_10131T0	Z519_04281T0	92.15	548	43	0	1	548	1	548	0	1031

4	A105_10373T0	Z519_11046T0	92.15	395	30	1	2	395	780	1174	0	742
2	A105_05798T0	Z519_04935T0	92.16	574	45	0	1	574	1	574	0	1099
1	A105_06264T0	Z519_10749T0	92.16	485	38	0	1	485	1	485	0	850
1	A105_12079T0	Z519_12341T0	92.16	421	33	0	1	421	1	421	0	748
3	A105_12991T0	Z519_04407T0	92.16	102	8	0	1	102	100	201	1.00E-61	195
1	A105_05809T0	Z519_04924T0	92.17	230	18	0	1	230	71	300	2.00E-156	439
8	A105_08877T0	Z519_03777T0	92.17	166	12	1	1	166	1	165	3.00E-106	311
2	A105_09454T0	Z519_01132T0	92.17	511	36	2	1	507	1	511	0	922
1	A105_09477T0	Z519_01109T0	92.17	115	9	0	1	115	1	115	4.00E-71	211
2	A105_09938T0	Z519_04209T0	92.17	332	26	0	1	332	1	332	0	631
1	A105_11221T0	Z519_08859T0	92.17	511	40	0	1	511	1	511	0	986
1	A105_09519T0	Z519_01069T0	92.18	294	22	1	1	293	1	294	0	531
62	A105_12116T0	Z519_12376T0	92.18	678	53	0	1	678	1	678	0	1218
1	A105_12352T0	Z519_12437T0	92.18	601	22	1	1	576	1	601	0	1083
1	A105_00851T0	Z519_00799T0	92.19	576	45	0	1	576	1	576	0	994
2	A105_00970T0	Z519_00907T0	92.19	128	10	0	1	128	1	128	1.00E-84	249
22	A105_06458T0	Z519_09202T0	92.19	384	30	0	1	384	1	384	0	724
1	A105_06662T0	Z519_09007T0	92.19	192	15	0	1	192	20	211	6.00E-108	311
1	A105_09498T0	Z519_01086T0	92.19	397	31	0	1	397	1	397	0	768
5	A105_11204T0	Z519_08879T0	92.19	576	45	0	1	576	1	576	0	1080
19	A105_11496T0	Z519_08774T0	92.19	704	55	0	1	704	1	704	0	1290
6	A105_11733T0	Z519_02947T0	92.19	704	40	1	1	704	1	689	0	1300
2	A105_01934T0	Z519_01526T0	92.2	282	19	1	1	282	1	279	0	522
8	A105_02931T0	Z519_12747T0	92.2	449	35	0	1	449	1	449	0	855
1	A105_05143T0	Z519_08033T0	92.2	500	39	0	1	500	1	500	0	958
135	A105_07440T0	Z519_06009T0	92.2	551	17	2	1	525	1	551	0	1007
36	A105_07598T0	Z519_06161T0	92.2	731	57	0	1	731	1	731	0	1380
1	A105_10197T0	Z519_10863T0	92.2	423	33	0	56	478	1	423	0	783
4	A105_11469T0	Z519_08752T0	92.2	795	41	2	1	774	1	795	0	1510
1	A105_01643T0	Z519_01774T0	92.21	732	57	0	1	732	1	732	0	1329
1	A105_02261T0	Z519_11718T0	92.21	231	18	0	1	231	1	231	9.00E-159	442
1	A105_04418T0	Z519_02250T0	92.21	77	6	0	1	77	1	77	8.00E-37	120
43	A105_06551T0	Z519_09114T0	92.21	975	46	3	1	958	1	962	0	1828
1	A105_11757T0	Z519_02923T0	92.21	154	11	1	1	154	1	153	8.00E-55	172
1	A105_00945T0	Z519_00878T0	92.22	167	13	0	1	167	1	167	5.00E-113	321

1	A105_01415T0	Z519_11853T0	92.22	257	19	1	1	256	1	257	4.00E-132	377
2	A105_09909T0	Z519_10310T0	92.22	861	65	1	1	861	1	859	0	1427
1	A105_11748T0	Z519_02932T0	92.22	334	26	0	37	370	1	334	0	584
133	A105_12708T0	Z519_09799T0	92.22	257	20	0	1	257	1	257	8.00E-178	493
41	A105_00297T0	Z519_00307T0	92.23	1377	107	0	1	1377	166	1542	0	2620
3	A105_01017T0	Z519_00941T0	92.23	386	30	0	2	387	390	775	0	740
92	A105_01591T0	Z519_01823T0	92.23	579	35	1	1	569	1	579	0	1111
4	A105_03075T0	Z519_11963T0	92.23	605	47	0	10	614	24	628	0	1129
25	A105_08643T0	Z519_04015T0	92.23	309	24	0	1	309	1	309	0	574
1	A105_11075T0	Z519_06875T0	92.23	309	22	1	1	309	1	307	0	585
82	A105_12600T0	Z519_05443T0	92.23	399	31	0	18	416	98	496	0	753
1	A105_12940T0	Z519_11079T0	92.23	476	37	0	1	476	1	476	0	815
3	A105_03532T0	Z519_09654T0	92.24	606	42	1	1	601	1	606	0	1137
1	A105_11149T0	Z519_08926T0	92.24	438	34	0	1	438	1	438	0	793
1	A105_12336T0	Z519_12422T0	92.24	490	38	0	1	490	1	490	0	891
28	A105_08746T0	Z519_03912T0	92.25	400	31	0	1	400	1	400	0	773
2	A105_12070T0	Z519_12332T0	92.25	271	21	0	1	271	1	271	4.00E-157	441
2	A105_00193T0	Z519_00195T0	92.26	297	20	1	1	297	1	294	0	563
99	A105_01597T0	Z519_01818T0	92.26	633	48	1	1	633	1	632	0	1207
2	A105_04607T0	Z519_02435T0	92.26	891	62	1	1	891	1	884	0	1526
2	A105_04944T0	Z519_02768T0	92.26	504	37	1	1	504	1	502	0	934
6	A105_06846T0	Z519_06655T0	92.26	1124	78	3	1	1123	1	1116	0	2058
4	A105_07659T0	Z519_06224T0	92.26	1356	104	1	1	1355	46	1401	0	2603
1	A105_01918T0	Z519_01543T0	92.27	1668	129	0	1	1668	1	1668	0	2940
2	A105_02456T0	Z519_06988T0	92.27	207	16	0	1	207	1	207	3.00E-136	383
53	A105_03671T0	Z519_02991T0	92.27	660	51	0	1	660	140	799	0	1253
3	A105_04494T0	Z519_02321T0	92.27	466	32	1	1	466	1	462	0	823
5	A105_08244T0	Z519_09465T0	92.27	194	15	0	323	516	228	421	1.00E-119	362
14	A105_11505T0	Z519_08783T0	92.27	647	19	2	1	616	14	660	0	1215
1	A105_12169T0	Z519_09287T0	92.27	181	12	1	1	181	123	301	2.00E-116	335
2	A105_12442T0	Z519_12673T0	92.27	207	16	0	26	232	16	222	1.00E-132	387
1	A105_12790T0	Z519_12797T0	92.27	233	13	1	3	230	1	233	1.00E-146	412
1	A105_13057T0	Z519_12121T0	92.27	905	69	1	1	905	1	904	0	1642
24	A105_02888T0	Z519_07419T0	92.28	622	48	0	1	622	1	622	0	1203
1	A105_03199T0	Z519_10050T0	92.28	518	36	3	1	517	1	515	0	791

23	A105_03537T0	Z519_09659T0	92.28	570	28	1	1	554	1	570	0	1098
47	A105_01451T0	Z519_11817T0	92.29	713	52	2	1	712	1	711	0	1358
1	A105_01843T0	Z519_01620T0	92.29	428	33	0	1	428	1	428	0	780
1	A105_05875T0	Z519_04859T0	92.29	506	39	0	1	506	1	506	0	879
1	A105_12405T0	Z519_06272T0	92.29	363	26	1	1	361	1	363	0	669
14	A105_02490T0	Z519_07023T0	92.3	766	59	0	1	766	1	766	0	1443
1	A105_00556T0	Z519_00567T0	92.31	247	19	0	1	247	142	388	7.00E-164	462
2	A105_00714T0	Z519_00708T0	92.31	221	13	1	4	224	1007	1223	3.00E-132	404
1	A105_01888T0	Z519_01578T0	92.31	169	13	0	1	169	1	169	6.00E-103	295
5	A105_03590T0	Z519_09717T0	92.31	312	24	0	1	312	1	312	0	605
1	A105_05254T0	Z519_08125T0	92.31	221	14	1	1	221	1	218	2.00E-124	354
1	A105_06104T0	Z519_04633T0	92.31	299	20	1	34	332	25	320	0	572
4	A105_06420T0	Z519_10621T0	92.31	364	28	0	1	364	1	364	0	698
5	A105_06564T0	Z519_09100T0	92.31	195	15	0	1	195	1	195	2.00E-133	375
2	A105_06991T0	Z519_06507T0	92.31	351	27	0	1	351	46	396	0	676
2	A105_07366T0	Z519_05938T0	92.31	221	17	0	1	221	1	221	2.00E-153	428
3	A105_07769T0	Z519_07582T0	92.31	260	20	0	1	260	1	260	5.00E-178	493
12	A105_10224T0	Z519_10890T0	92.31	351	24	2	1	349	1	350	0	662
1	A105_11519T0	Z519_11580T0	92.31	325	25	0	1	325	1	325	0	531
1	A105_11603T0	Z519_08691T0	92.31	143	11	0	1	143	1	143	6.00E-82	240
1	A105_11940T0	Z519_02041T0	92.31	65	5	0	1	65	1	65	3.00E-38	123
5	A105_13055T0	Z519_12119T0	92.31	65	4	1	2	66	127	190	6.00E-35	120
1	A105_00306T0	Z519_00315T0	92.33	952	73	0	1	952	106	1057	0	1785
1	A105_03493T0	Z519_09617T0	92.33	352	27	0	1	352	5	356	0	583
4	A105_04311T0	Z519_03589T0	92.33	417	32	0	93	509	1	417	0	792
6	A105_11196T0	Z519_08886T0	92.33	926	42	3	1	899	1	924	0	1596
2	A105_00857T0	Z519_00805T0	92.34	209	16	0	1	209	51	259	5.00E-94	278
1	A105_00928T0	Z519_00864T0	92.34	431	26	1	1	431	1	424	0	815
2	A105_02047T0	Z519_01409T0	92.34	1136	86	1	1	1136	1	1135	0	2149
48	A105_03015T0	Z519_12014T0	92.34	522	38	1	1	522	158	677	0	997
1	A105_03913T0	Z519_03227T0	92.34	261	15	2	1	260	1	257	3.00E-170	474
1	A105_04226T0	Z519_03506T0	92.34	431	33	0	1	431	1	431	0	834
1	A105_05289T0	Z519_08163T0	92.34	248	19	0	1	248	1	248	1.00E-173	481
2	A105_12420T0	Z519_06257T0	92.34	261	8	1	1	249	1	261	2.00E-163	456
1	A105_01804T0	Z519_01660T0	92.35	196	8	1	1	189	1	196	2.00E-130	367

1	A105_02965T0	Z519_12063T0	92.35	523	39	1	1	523	1	522	0	990
1	A105_06985T0	Z519_06514T0	92.35	392	30	0	1	392	93	484	0	761
10	A105_07352T0	Z519_05924T0	92.35	353	27	0	1	353	1	353	0	678
8	A105_09853T0	Z519_10364T0	92.35	1569	116	1	1	1569	1	1565	0	2944
13	A105_10582T0	Z519_12563T0	92.35	340	26	0	1	340	1	340	0	665
1	A105_04222T0	Z519_03502T0	92.36	157	12	0	5	161	463	619	7.00E-90	276
2	A105_05447T0	Z519_08324T0	92.36	1295	89	2	1	1292	1	1288	0	2399
1	A105_07600T0	Z519_06163T0	92.36	288	18	1	1	288	1	284	0	551
9	A105_03445T0	Z519_10267T0	92.37	262	10	1	1	262	1	252	2.00E-144	424
2	A105_06105T0	Z519_04632T0	92.37	577	44	0	1	577	1	577	0	1095
1	A105_06612T0	Z519_09052T0	92.37	118	9	0	1	118	1	118	5.00E-72	224
1	A105_07454T0	Z519_06021T0	92.37	485	37	0	1	485	1	485	0	924
5	A105_07743T0	Z519_07557T0	92.37	472	36	0	1	472	1	472	0	862
5	A105_08197T0	Z519_09421T0	92.37	498	38	0	1	498	1	498	0	880
1	A105_09422T0	Z519_01164T0	92.37	118	9	0	1	118	100	217	1.00E-63	195
1	A105_10368T0	Z519_11041T0	92.37	852	65	0	3	854	36	887	0	1550
1	A105_00577T0	Z519_00588T0	92.38	105	8	0	1	105	1	105	1.00E-53	165
6	A105_01525T0	Z519_01894T0	92.38	328	25	0	1	328	1	328	0	600
12	A105_01573T0	Z519_01847T0	92.38	315	24	0	1	315	13	327	0	577
78	A105_05504T0	Z519_03620T0	92.38	551	36	1	1	551	1	545	0	1047
1	A105_06005T0	Z519_04731T0	92.38	302	23	0	1	302	1	302	0	535
1	A105_06431T0	Z519_10610T0	92.38	328	25	0	1	328	1	328	0	642
46	A105_06643T0	Z519_09023T0	92.38	407	29	1	1	407	66	470	0	771
3	A105_07232T0	Z519_05809T0	92.38	512	37	1	1	512	1	510	0	984
2	A105_10502T0	Z519_11380T0	92.38	328	24	1	154	481	41	367	2.00E-180	514
4	A105_10742T0	Z519_09930T0	92.38	433	32	1	66	498	1	432	0	783
137	A105_10896T0	Z519_11436T0	92.38	551	23	1	1	551	1	532	0	1005
3	A105_00335T0	Z519_00340T0	92.39	197	13	1	1	197	1	195	4.00E-110	316
2	A105_02371T0	Z519_11601T0	92.39	644	49	0	1	644	1	644	0	1246
1	A105_03706T0	Z519_03025T0	92.39	289	22	0	1	289	1	289	1.00E-154	438
2	A105_05501T0	Z519_03617T0	92.39	92	7	0	139	230	1	92	8.00E-55	173
77	A105_06549T0	Z519_09116T0	92.39	552	42	0	1	552	1	552	0	979
1	A105_07668T0	Z519_06232T0	92.39	394	30	0	1	394	1	394	0	743
1	A105_08758T0	Z519_03899T0	92.39	197	15	0	1	197	2	198	1.00E-101	295
56	A105_08783T0	Z519_03874T0	92.39	473	36	0	1	473	1	473	0	917

2	A105_09491T0	Z519_01092T0	92.39	184	14	0	1	184	1	184	2.00E-122	346
1	A105_09544T0	Z519_01053T0	92.39	933	65	2	1	929	1	931	0	1615
2	A105_10780T0	Z519_12285T0	92.39	197	15	0	1	197	324	520	3.00E-125	374
6	A105_11451T0	Z519_08730T0	92.39	644	49	0	1	644	1	644	0	1190
35	A105_13081T0	Z519_11216T0	92.39	657	46	2	1	655	1	655	0	1253
17	A105_01602T0	Z519_01814T0	92.4	684	29	2	66	730	11	690	0	1207
2	A105_02218T0	Z519_11757T0	92.4	329	25	0	1	329	1	329	0	608
2	A105_03254T0	Z519_10103T0	92.4	684	41	2	1	673	1	684	0	1114
3	A105_05076T0	Z519_07966T0	92.4	737	55	1	1	737	1	736	0	1388
11	A105_05551T0	Z519_03666T0	92.4	434	33	0	1	434	1	434	0	826
1	A105_01421T0	Z519_11847T0	92.41	303	23	0	1	303	1	303	0	510
171	A105_09194T0	Z519_05308T0	92.41	290	5	1	1	273	1	290	0	543
1	A105_11369T0	Z519_02089T0	92.41	79	6	0	2	80	109	187	3.00E-45	147
1	A105_11773T0	Z519_02908T0	92.41	395	30	0	1	395	1	395	0	714
1	A105_11826T0	Z519_01933T0	92.41	290	22	0	1	290	39	328	0	536
1	A105_04208T0	Z519_03487T0	92.42	422	31	1	18	439	1	421	0	781
13	A105_05525T0	Z519_03641T0	92.42	594	45	0	1	594	90	683	0	1131
19	A105_08131T0	Z519_09353T0	92.42	937	71	0	1	937	1	937	0	1774
3	A105_09189T0	Z519_05302T0	92.42	356	27	0	2	357	54	409	0	651
23	A105_01031T0	Z519_00954T0	92.43	621	42	2	1	620	1	617	0	1152
151	A105_01548T0	Z519_01871T0	92.43	515	22	2	1	500	1	513	0	970
2	A105_01901T0	Z519_01564T0	92.43	449	32	1	1	447	1	449	0	769
1	A105_05384T0	Z519_08258T0	92.43	806	61	0	1	806	1	806	0	1496
1	A105_10324T0	Z519_10991T0	92.43	1281	97	0	1	1281	1	1281	0	2388
5	A105_12784T0	Z519_10843T0	92.43	370	28	0	1	370	1	370	0	699
1	A105_02265T0	Z519_11712T0	92.44	754	57	0	1	754	1	754	0	1457
12	A105_03866T0	Z519_03184T0	92.44	1732	130	1	1	1731	1	1732	0	3292
1	A105_04485T0	Z519_02314T0	92.44	119	9	0	1	119	422	540	4.00E-70	221
1	A105_04650T0	Z519_02477T0	92.44	119	9	0	1	119	1	119	2.00E-52	174
6	A105_05772T0	Z519_04965T0	92.44	291	21	1	36	326	38	327	0	536
7	A105_07086T0	Z519_06413T0	92.44	807	61	0	1	807	41	847	0	1510
1	A105_08300T0	Z519_09516T0	92.44	516	39	0	1	516	154	669	0	980
32	A105_11935T0	Z519_02035T0	92.44	344	26	0	1	344	1	344	0	651
1	A105_13030T0	Z519_04447T0	92.44	119	9	0	1	119	75	193	1.00E-74	222
5	A105_03261T0	Z519_10111T0	92.45	278	20	1	1	278	1	277	0	539

1	A105_07214T0	Z519_05792T0	92.45	768	21	2	1	752	1	747	0	1452
2	A105_07455T0	Z519_06022T0	92.45	1192	69	1	1	1171	1	1192	0	2230
1	A105_07808T0	Z519_07623T0	92.45	556	42	0	1	556	1	556	0	1000
37	A105_05801T0	Z519_04932T0	92.46	345	21	1	1	340	1	345	0	628
40	A105_06224T0	Z519_10787T0	92.46	544	26	1	1	544	1	529	0	1013
3	A105_06716T0	Z519_06795T0	92.46	464	35	0	1	464	1	464	0	863
2	A105_07103T0	Z519_06397T0	92.46	451	29	1	372	822	446	891	9.00E-175	530
1	A105_04307T0	Z519_03587T0	92.47	146	11	0	1	146	911	1056	4.00E-92	291
2	A105_04422T0	Z519_02254T0	92.47	292	20	1	19	310	19	308	0	543
5	A105_06349T0	Z519_10690T0	92.47	584	36	1	1	576	1	584	0	1034
3	A105_08683T0	Z519_03976T0	92.47	558	42	0	1	558	1	558	0	1014
1	A105_11778T0	Z519_02903T0	92.47	1062	77	1	13	1074	1	1059	0	1902
15	A105_11818T0	Z519_01925T0	92.47	438	29	1	1	438	1	434	0	821
3	A105_12644T0	Z519_05392T0	92.47	558	28	2	1	545	84	640	0	1042
41	A105_01269T0	Z519_08535T0	92.48	851	63	1	1	851	1	850	0	1604
34	A105_03226T0	Z519_10077T0	92.48	266	20	0	1	266	1	266	0	509
2	A105_06418T0	Z519_10623T0	92.48	439	33	0	1	439	1	439	0	800
4	A105_07141T0	Z519_06360T0	92.48	678	49	2	1	678	1	676	0	1241
3	A105_07353T0	Z519_05925T0	92.48	319	24	0	1	319	1	319	0	610
12	A105_08553T0	Z519_04245T0	92.48	226	17	0	1	226	1	226	1.00E-155	434
16	A105_02096T0	Z519_01384T0	92.49	373	28	0	1	373	1	373	0	665
1	A105_04456T0	Z519_02288T0	92.49	866	64	1	1	866	17	881	0	1546
1	A105_06946T0	Z519_06551T0	92.49	506	36	1	1	504	10	515	0	900
3	A105_07106T0	Z519_06394T0	92.49	253	16	2	1	251	1	252	5.00E-154	433
1	A105_00394T0	Z519_00396T0	92.5	747	56	0	1	747	7	753	0	1417
1	A105_03531T0	Z519_09653T0	92.5	693	52	0	1	693	1	693	0	1333
5	A105_08249T0	Z519_09470T0	92.5	240	17	1	1	240	1	239	2.00E-128	366
41	A105_08613T0	Z519_04036T0	92.5	600	35	3	36	631	128	721	0	1108
1	A105_08649T0	Z519_04007T0	92.5	1000	75	0	1	1000	1	1000	0	1787
17	A105_08802T0	Z519_03852T0	92.5	320	23	1	31	350	15	333	0	599
1	A105_09040T0	Z519_05145T0	92.5	480	35	1	1	480	1	479	0	872
1	A105_09297T0	Z519_01268T0	92.5	613	46	0	45	657	5	617	0	1150
3	A105_10005T0	Z519_04163T0	92.5	320	22	1	1	320	1	318	0	617
1	A105_01844T0	Z519_01619T0	92.51	534	28	1	1	534	1	522	0	971
14	A105_05375T0	Z519_08249T0	92.51	641	42	2	1	641	1	635	0	1222

1	A105_07864T0	Z519_07695T0	92.51	374	28	0	1	374	1	374	0	720
1	A105_10477T0	Z519_11353T0	92.51	801	59	1	1	801	24	823	0	1471
1	A105_11324T0	Z519_02135T0	92.51	347	26	0	1	347	1	347	0	637
1	A105_00050T0	Z519_00049T0	92.52	294	22	0	1	294	1	294	0	554
53	A105_02155T0	Z519_01327T0	92.52	254	19	0	1	254	1	254	5.00E-172	478
1	A105_05885T0	Z519_04849T0	92.52	147	11	0	1	147	1	147	3.00E-98	282
19	A105_06380T0	Z519_10660T0	92.52	441	30	1	7	444	140	580	0	792
71	A105_08476T0	Z519_05576T0	92.52	642	41	1	1	635	1	642	0	1236
1	A105_09224T0	Z519_05338T0	92.52	548	21	1	1	528	63	610	0	1039
8	A105_12108T0	Z519_12369T0	92.52	107	8	0	1	107	1	107	4.00E-69	204
2	A105_13326T0	Z519_05007T0	92.52	401	30	0	1	401	1	401	0	751
1	A105_02269T0	Z519_11708T0	92.53	562	41	1	1	561	1	562	0	952
1	A105_02900T0	Z519_12777T0	92.53	589	42	2	16	602	17	605	0	999
1	A105_08152T0	Z519_09376T0	92.53	1031	49	5	1	1029	1	1005	0	1562
1	A105_08233T0	Z519_09453T0	92.53	348	22	2	1	344	1	348	0	642
47	A105_08330T0	Z519_09544T0	92.53	1125	83	1	1	1124	1	1125	0	2069
1	A105_00438T0	Z519_00445T0	92.54	536	40	0	1	536	1	536	0	1042
3	A105_03555T0	Z519_09677T0	92.54	751	56	0	1	751	1	751	0	1391
3	A105_04446T0	Z519_02278T0	92.54	402	12	1	1	402	1	384	0	749
1	A105_04457T0	Z519_02289T0	92.54	362	22	3	1	359	1	360	0	647
1	A105_06514T0	Z519_09149T0	92.54	469	35	0	1	469	1	469	0	864
1	A105_10175T0	Z519_12678T0	92.54	911	67	1	1	911	1	910	0	1633
26	A105_10355T0	Z519_11026T0	92.54	764	57	0	1	764	1	764	0	1454
84	A105_10604T0	Z519_12549T0	92.54	563	42	0	1	563	1	563	0	1005
3	A105_11280T0	Z519_08798T0	92.54	335	25	0	1	335	1	335	0	617
1	A105_11400T0	Z519_02059T0	92.54	1019	74	1	1	1017	1	1019	0	1823
1	A105_00856T0	Z519_00804T0	92.55	1060	60	6	1	1056	1	1045	0	1827
1	A105_03606T0	Z519_09733T0	92.55	349	26	0	1	349	1	349	0	671
5	A105_03785T0	Z519_03107T0	92.55	510	35	1	8	517	1	507	0	993
11	A105_05955T0	Z519_04780T0	92.55	510	37	1	1	510	50	558	0	940
17	A105_09786T0	Z519_10434T0	92.55	255	19	0	1	255	1	255	5.00E-180	498
1	A105_11073T0	Z519_06873T0	92.55	94	7	0	1	94	46	139	3.00E-62	189
21	A105_12650T0	Z519_05386T0	92.55	483	36	0	1	483	1	483	0	927
1	A105_13025T0	Z519_04442T0	92.55	564	33	1	1	555	1	564	0	996
1	A105_04784T0	Z519_02611T0	92.56	632	41	1	1	626	1	632	0	1218

2	A105_08410T0	Z519_05640T0	92.56	632	14	1	1	599	1	632	0	1183
2	A105_11958T0	Z519_05775T0	92.56	363	19	1	1	355	1	363	0	692
1	A105_00633T0	Z519_00644T0	92.57	175	13	0	1	175	1	175	4.00E-115	327
1	A105_01855T0	Z519_01609T0	92.57	552	41	0	1	552	1	552	0	1059
1	A105_04962T0	Z519_02786T0	92.57	471	35	0	1	471	1	471	0	895
1	A105_05382T0	Z519_08256T0	92.57	848	56	4	1	846	1	843	0	1396
63	A105_06024T0	Z519_04711T0	92.57	619	46	0	1	619	1	619	0	1159
8	A105_09373T0	Z519_01196T0	92.57	323	24	0	1	323	1	323	0	620
14	A105_09414T0	Z519_01171T0	92.57	1790	131	1	1	1790	53	1840	0	3026
4	A105_11243T0	Z519_08834T0	92.57	592	43	1	1	592	1	591	0	1106
1	A105_11565T0	Z519_11531T0	92.57	646	45	1	1	643	1	646	0	1211
65	A105_11971T0	Z519_05761T0	92.57	579	11	1	1	547	9	587	0	1073
1	A105_00379T0	Z519_00382T0	92.58	1725	107	3	1	1708	1	1721	0	3064
22	A105_01595T0	Z519_01820T0	92.58	364	27	0	1	364	1	364	0	706
1	A105_02221T0	Z519_11754T0	92.58	593	44	0	20	612	1	593	0	1053
80	A105_02573T0	Z519_07103T0	92.58	836	57	1	1	831	1	836	0	1494
1	A105_07184T0	Z519_06316T0	92.58	256	6	1	1	243	1	256	8.00E-177	489
1	A105_07575T0	Z519_06139T0	92.58	445	33	0	1	445	1	445	0	819
87	A105_12258T0	Z519_04495T0	92.58	566	42	0	1	566	1	566	0	1072
1	A105_00647T0	Z519_00646T0	92.59	432	32	0	1	432	1	432	0	813
50	A105_01574T0	Z519_01846T0	92.59	634	47	0	1	634	147	780	0	1222
2	A105_03181T0	Z519_10032T0	92.59	27	2	0	20	46	1	27	7.00E-13	58.5
2	A105_07269T0	Z519_05847T0	92.59	499	37	0	25	523	25	523	0	962
75	A105_07636T0	Z519_06201T0	92.59	715	53	0	1	715	162	876	0	1347
4	A105_07751T0	Z519_07565T0	92.59	351	21	1	1	351	159	504	0	654
1	A105_10019T0	Z519_04151T0	92.59	108	8	0	9	116	33	140	1.00E-62	190
2	A105_12068T0	Z519_12330T0	92.59	715	53	0	1	715	1	715	0	1376
19	A105_13098T0	Z519_11227T0	92.59	526	39	0	1	526	1	526	0	926
3	A105_07993T0	Z519_07829T0	92.6	338	25	0	1	338	1	338	0	647
1	A105_09237T0	Z519_05347T0	92.6	365	27	0	1	365	1	365	0	699
76	A105_02779T0	Z519_07311T0	92.61	555	41	0	1	555	1	555	0	1012
1	A105_04426T0	Z519_02258T0	92.61	582	40	1	1	579	1	582	0	1028
1	A105_09025T0	Z519_05130T0	92.61	379	28	0	1	379	1	379	0	600
1	A105_02084T0	Z519_01395T0	92.62	393	27	1	1	391	1	393	0	741
1	A105_02293T0	Z519_11683T0	92.62	122	9	0	1	122	1	122	1.00E-78	231

1	A105_03060T0	Z519_11978T0	92.62	325	24	0	1	325	1	325	0	609
157	A105_04203T0	Z519_03482T0	92.62	542	34	3	1	541	1	537	0	1010
1	A105_07088T0	Z519_06411T0	92.62	447	32	1	1	447	1	446	0	739
1	A105_07150T0	Z519_06351T0	92.62	569	39	1	1	569	1	566	0	1074
2	A105_07801T0	Z519_07616T0	92.62	325	24	0	1	325	1	325	0	621
1	A105_08002T0	Z519_07838T0	92.62	325	24	0	1	325	1	325	0	625
4	A105_13459T0	Z519_11389T0	92.62	244	18	0	1	244	1	244	4.00E-166	462
7	A105_08918T0	Z519_03734T0	92.63	353	26	0	1	353	1	353	0	637
3	A105_09085T0	Z519_05196T0	92.63	217	16	0	1	217	417	633	4.00E-143	417
2	A105_09243T0	Z519_05353T0	92.63	977	71	1	1	977	1	976	0	1884
2	A105_10886T0	Z519_11425T0	92.63	624	46	0	16	639	68	691	0	1166
1	A105_11983T0	Z519_05749T0	92.63	285	21	0	1	285	1	285	0	541
48	A105_12928T0	Z519_11066T0	92.63	448	32	1	1	447	1	448	0	811
1	A105_02435T0	Z519_06965T0	92.64	571	42	0	1	571	1	571	0	1060
1	A105_02614T0	Z519_07142T0	92.64	421	31	0	17	437	17	437	0	789
1	A105_02997T0	Z519_12032T0	92.64	163	12	0	58	220	32	194	4.00E-71	222
2	A105_04433T0	Z519_02265T0	92.64	258	19	0	39	296	39	296	2.00E-180	502
1	A105_04595T0	Z519_02423T0	92.64	299	20	1	1	299	1	297	0	508
3	A105_06813T0	Z519_06687T0	92.64	761	50	3	1	761	1	755	0	1298
1	A105_12371T0	Z519_12456T0	92.64	299	22	0	1	299	1	299	0	568
1	A105_02476T0	Z519_07009T0	92.65	313	21	1	1	311	1	313	0	509
8	A105_08034T0	Z519_07871T0	92.65	612	21	1	1	588	1	612	0	1167
1	A105_08145T0	Z519_09368T0	92.65	136	8	1	1	136	1	134	1.00E-83	244
1	A105_09750T0	Z519_10471T0	92.65	68	5	0	1	68	1	68	5.00E-40	127
2	A105_11157T0	Z519_08919T0	92.65	204	4	1	748	951	131	323	1.00E-127	391
1	A105_01100T0	Z519_08374T0	92.66	913	65	2	1	912	1	912	0	1604
1	A105_02104T0	Z519_01376T0	92.66	668	47	1	1	666	1	668	0	1240
8	A105_02599T0	Z519_07128T0	92.66	531	39	0	1	531	1	531	0	989
2	A105_03062T0	Z519_11976T0	92.66	368	27	0	1	368	1	368	0	705
31	A105_04904T0	Z519_02730T0	92.66	354	26	0	1	354	1	354	0	652
2	A105_06854T0	Z519_06649T0	92.66	177	13	0	1	177	1	177	3.00E-121	342
1	A105_07215T0	Z519_05793T0	92.66	259	9	1	1	249	1	259	2.00E-177	491
6	A105_10076T0	Z519_04093T0	92.66	668	45	1	1	664	1	668	0	1269
1	A105_03871T0	Z519_03189T0	92.67	232	17	0	1	232	1	232	5.00E-156	435
1	A105_04161T0	Z519_03440T0	92.67	232	17	0	1	232	1	232	3.00E-160	446

1	A105_06906T0	Z519_06593T0	92.67	546	40	0	1	546	1	546	0	1040
3	A105_07060T0	Z519_06440T0	92.67	273	20	0	1	273	1	273	0	516
1	A105_09035T0	Z519_05140T0	92.67	341	25	0	1	341	1	341	0	586
10	A105_09952T0	Z519_04194T0	92.67	423	31	0	1	423	121	543	0	797
31	A105_10599T0	Z519_12554T0	92.67	409	30	0	1	409	1	409	0	793
1	A105_12771T0	Z519_10830T0	92.67	655	48	0	1	655	1	655	0	1233
1	A105_13026T0	Z519_04443T0	92.67	450	32	1	1	450	1	449	0	794
40	A105_00439T0	Z519_00446T0	92.68	560	41	0	1	560	1	560	0	1070
5	A105_03209T0	Z519_10059T0	92.68	369	27	0	1	369	1	369	0	701
5	A105_03246T0	Z519_10095T0	92.68	410	23	3	1	405	1	408	0	768
13	A105_03717T0	Z519_03036T0	92.68	205	15	0	49	253	240	444	1.00E-129	377
1	A105_06324T0	Z519_10701T0	92.68	123	9	0	1	123	1	123	6.00E-78	228
1	A105_00154T0	Z519_00154T0	92.69	889	65	0	1	889	1	889	0	1627
1	A105_00743T0	Z519_00736T0	92.69	479	35	0	1	479	1	479	0	907
1	A105_04040T0	Z519_03322T0	92.69	301	22	0	10	310	86	386	0	565
2	A105_06826T0	Z519_06675T0	92.69	807	58	1	1	806	1	807	0	1524
1	A105_06956T0	Z519_06540T0	92.69	684	21	3	1	677	1	662	0	1228
1	A105_07038T0	Z519_06464T0	92.69	520	38	0	1	520	1	520	0	976
2	A105_07777T0	Z519_07592T0	92.69	479	35	0	1	479	1	479	0	858
75	A105_10596T0	Z519_12558T0	92.69	616	45	0	1	616	1	616	0	1132
1	A105_11099T0	Z519_06899T0	92.69	301	22	0	4	304	6	306	0	526
14	A105_12489T0	Z519_02823T0	92.69	930	64	1	2	931	92	1017	0	1791
1	A105_06800T0	Z519_06703T0	92.7	890	65	0	1	890	1	890	0	1665
5	A105_12934T0	Z519_11073T0	92.7	274	20	0	430	703	1	274	0	532
3	A105_13114T0	Z519_11240T0	92.7	534	38	1	1	534	1	533	0	1025
12	A105_04212T0	Z519_03491T0	92.71	658	44	2	1	655	1	657	0	1127
1	A105_04444T0	Z519_02276T0	92.71	96	5	1	1	96	1	94	2.00E-57	174
1	A105_04909T0	Z519_02735T0	92.71	425	29	2	1	424	31	454	0	772
1	A105_07415T0	Z519_05987T0	92.71	1345	91	5	1	1342	1	1341	0	2483
1	A105_12275T0	Z519_04479T0	92.71	96	7	0	1	96	1	96	1.00E-49	154
1	A105_00405T0	Z519_00407T0	92.72	151	11	0	1	151	1	151	2.00E-87	271
1	A105_00940T0	Z519_00875T0	92.72	1387	101	0	1	1387	1	1387	0	2615
45	A105_01154T0	Z519_08421T0	92.72	316	23	0	1	316	1	316	0	610
1	A105_02995T0	Z519_12034T0	92.72	797	57	1	1	797	1	796	0	1400
11	A105_05350T0	Z519_08223T0	92.72	371	27	0	1	371	1	371	0	718

83	A105_07443T0	Z519_06012T0	92.72	151	11	0	29	179	1	151	3.00E-103	296
1	A105_08865T0	Z519_03788T0	92.72	728	53	0	1	728	1	728	0	1226
1	A105_13067T0	Z519_12131T0	92.72	2570	187	0	1	2570	1	2570	0	4725
2	A105_07337T0	Z519_05909T0	92.73	55	2	1	1	55	17	69	2.00E-27	102
3	A105_07739T0	Z519_07553T0	92.73	330	24	0	1	330	1	330	0	602
15	A105_08648T0	Z519_04008T0	92.73	729	48	1	1	724	1	729	0	1372
1	A105_09827T0	Z519_10390T0	92.73	165	12	0	1	165	1	165	6.00E-112	318
22	A105_10130T0	Z519_04280T0	92.73	385	28	0	1	385	250	634	0	742
1	A105_10205T0	Z519_10871T0	92.73	564	41	0	1	564	1	564	0	1078
60	A105_11771T0	Z519_02909T0	92.73	275	20	0	1	275	1	275	0	513
162	A105_12632T0	Z519_05405T0	92.73	495	33	1	1	492	1	495	0	956
6	A105_00258T0	Z519_00260T0	92.74	441	30	1	1	441	1	439	0	696
25	A105_02410T0	Z519_06938T0	92.74	606	38	1	1	606	1	600	0	1098
1	A105_02921T0	Z519_12755T0	92.74	179	9	1	48	226	1	175	1.00E-115	330
8	A105_06857T0	Z519_06646T0	92.74	647	25	3	1	625	1	647	0	1221
1	A105_08960T0	Z519_05063T0	92.74	124	9	0	1	124	1	124	1.00E-67	202
1	A105_09795T0	Z519_10425T0	92.74	537	39	0	51	587	21	557	0	997
3	A105_01571T0	Z519_01848T0	92.75	138	10	0	1	138	1	138	6.00E-91	279
2	A105_01618T0	Z519_01799T0	92.75	138	10	0	1	138	1	138	2.00E-80	236
1	A105_05419T0	Z519_08294T0	92.75	897	63	1	1	895	1	897	0	1556
1	A105_05898T0	Z519_04836T0	92.75	69	5	0	1	69	1	69	6.00E-34	113
1	A105_07820T0	Z519_07636T0	92.75	138	10	0	22	159	22	159	7.00E-89	259
15	A105_10371T0	Z519_11045T0	92.75	193	14	0	1	193	1	193	9.00E-135	379
1	A105_11986T0	Z519_05746T0	92.75	207	9	1	1	207	1	201	1.00E-121	346
1	A105_01712T0	Z519_01714T0	92.76	580	41	1	1	579	1	580	0	1070
56	A105_05079T0	Z519_07969T0	92.76	1285	70	2	1	1262	1	1285	0	2418
6	A105_08207T0	Z519_09429T0	92.76	774	56	0	1	774	1	774	0	1435
48	A105_10255T0	Z519_10920T0	92.76	525	38	0	1	525	1	525	0	1014
8	A105_00148T0	Z519_00149T0	92.77	650	47	0	66	715	287	936	0	1263
1	A105_00294T0	Z519_00304T0	92.77	622	45	0	1	622	554	1175	0	1173
1	A105_00626T0	Z519_00637T0	92.77	83	6	0	1	83	26	108	1.00E-49	155
1	A105_00858T0	Z519_00806T0	92.77	484	30	4	1	483	1	480	0	728
2	A105_01793T0	Z519_01671T0	92.77	470	34	0	1	470	13	482	0	920
1	A105_03067T0	Z519_11971T0	92.77	346	25	0	1	346	1	346	0	659
109	A105_05064T0	Z519_07954T0	92.77	429	30	1	1	429	1	428	0	820

4	A105_05489T0	Z519_08360T0	92.77	249	18	0	1	249	1	249	2.00E-171	476
50	A105_06835T0	Z519_06666T0	92.77	512	31	1	1	512	115	620	0	987
1	A105_08409T0	Z519_05641T0	92.77	415	30	0	1	415	1	415	0	773
1	A105_09066T0	Z519_05177T0	92.77	788	53	2	1	788	12	795	0	1374
1	A105_10298T0	Z519_10963T0	92.77	166	11	1	34	198	5	170	1.00E-99	289
75	A105_11626T0	Z519_08669T0	92.77	581	22	1	1	581	1	561	0	1095
9	A105_04916T0	Z519_02742T0	92.78	942	67	1	1	942	1	941	0	1743
1	A105_05103T0	Z519_07993T0	92.78	194	14	0	1	194	1	194	1.00E-130	389
2	A105_09577T0	Z519_01019T0	92.78	1025	25	4	1	1022	1	979	0	1868
1	A105_10931T0	Z519_11470T0	92.78	388	28	0	1	388	1	388	0	744
1	A105_11776T0	Z519_02905T0	92.78	720	45	1	1	713	1	720	0	1266
103	A105_12130T0	Z519_09225T0	92.78	485	35	0	1	485	1	485	0	917
74	A105_13396T0	Z519_04224T0	92.78	1454	89	2	1	1445	1	1447	0	2775
1	A105_03632T0	Z519_09760T0	92.79	402	29	0	1	402	1	402	0	679
57	A105_04285T0	Z519_03564T0	92.79	444	32	0	1	444	1	444	0	836
1	A105_06149T0	Z519_04589T0	92.79	333	24	0	1	333	1	333	0	593
20	A105_07041T0	Z519_06461T0	92.79	569	41	0	1	569	1	569	0	1077
3	A105_08987T0	Z519_05091T0	92.79	333	24	0	1	333	1	333	0	646
53	A105_09191T0	Z519_05304T0	92.79	1428	83	1	1	1408	1	1428	0	2728
10	A105_10344T0	Z519_11015T0	92.79	222	11	1	1	217	221	442	4.00E-142	409
1	A105_10671T0	Z519_09858T0	92.79	319	23	0	1	319	1	319	0	553
1	A105_01278T0	Z519_08543T0	92.8	264	19	0	1	264	1	264	3.00E-168	469
1	A105_02832T0	Z519_07363T0	92.8	125	9	0	109	233	1	125	2.00E-79	238
1	A105_02912T0	Z519_12764T0	92.8	236	17	0	1	236	151	386	7.00E-156	441
3	A105_08092T0	Z519_04308T0	92.8	250	18	0	1	250	1	250	8.00E-161	449
138	A105_03145T0	Z519_09998T0	92.81	334	9	1	1	334	1	319	0	636
1	A105_04166T0	Z519_03445T0	92.81	501	36	0	1	501	348	848	0	913
1	A105_07066T0	Z519_06434T0	92.81	306	20	1	1	306	1	304	1.00E-176	494
4	A105_07078T0	Z519_06423T0	92.81	153	11	0	80	232	1	153	8.00E-104	300
38	A105_07763T0	Z519_07576T0	92.81	737	45	2	1	729	1	737	0	1278
2	A105_07847T0	Z519_07676T0	92.81	278	20	0	1	278	1	278	0	533
10	A105_08744T0	Z519_03914T0	92.81	695	50	0	1	695	1	695	0	1318
1	A105_09128T0	Z519_05239T0	92.81	417	10	1	1	397	1	417	0	759
1	A105_09481T0	Z519_01102T0	92.81	1182	85	0	1	1182	1	1182	0	2201
6	A105_11053T0	Z519_06854T0	92.81	139	7	1	1	139	1	136	1.00E-62	193

5	A105_12842T0	Z519_07447T0	92.81	1141	76	2	1	1135	1	1141	0	2114
8	A105_00293T0	Z519_00303T0	92.82	1518	107	1	1	1518	1	1516	0	2869
1	A105_00560T0	Z519_00571T0	92.82	209	14	1	1	208	1	209	4.00E-142	399
1	A105_01156T0	Z519_08423T0	92.82	418	30	0	1	418	1	418	0	784
8	A105_01310T0	Z519_08574T0	92.82	724	52	0	1	724	1	724	0	1348
5	A105_01458T0	Z519_11810T0	92.82	390	28	0	1	390	133	522	0	749
1	A105_01905T0	Z519_01557T0	92.82	362	26	0	1	362	1	362	0	687
1	A105_04013T0	Z519_03310T0	92.82	209	15	0	1	209	1	209	3.00E-128	363
13	A105_04723T0	Z519_02553T0	92.82	682	49	0	1	682	1	682	0	1270
1	A105_09112T0	Z519_05222T0	92.82	195	13	1	1	195	28	221	1.00E-132	374
141	A105_10593T0	Z519_12560T0	92.82	376	24	1	1	373	1	376	0	698
1	A105_12320T0	Z519_12407T0	92.82	195	14	0	1	195	29	223	6.00E-117	334
1	A105_08852T0	Z519_03801T0	92.83	488	34	1	1	487	1	488	0	884
42	A105_09564T0	Z519_01032T0	92.83	321	23	0	1	321	1	321	0	623
40	A105_00740T0	Z519_00733T0	92.84	684	46	2	1	681	1	684	0	1261
14	A105_05019T0	Z519_07907T0	92.84	684	49	0	1	684	1	684	0	1338
1	A105_11213T0	Z519_08870T0	92.84	419	30	0	1	419	31	449	0	786
1	A105_08334T0	Z519_09548T0	92.85	685	47	2	21	704	21	704	0	1124
1	A105_11661T0	Z519_08637T0	92.85	923	61	2	1	923	1	918	0	1590
3	A105_00700T0	Z519_00694T0	92.86	98	7	0	1	98	1	98	3.00E-62	187
50	A105_02287T0	Z519_11689T0	92.86	4834	345	0	1	4834	1	4834	0	9294
1	A105_02365T0	Z519_11607T0	92.86	280	20	0	1	280	739	1018	0	550
1	A105_03263T0	Z519_10113T0	92.86	280	20	0	1	280	1	280	0	503
1	A105_06492T0	Z519_09171T0	92.86	182	13	0	1	182	1	182	8.00E-121	342
3	A105_06619T0	Z519_09046T0	92.86	574	37	1	1	570	1	574	0	1022
1	A105_08344T0	Z519_09558T0	92.86	84	6	0	1	84	1	84	2.00E-51	157
1	A105_09879T0	Z519_10339T0	92.86	140	10	0	1	140	1	140	5.00E-83	243
1	A105_10535T0	Z519_12609T0	92.86	112	8	0	11	122	1	112	3.00E-76	224
7	A105_11128T0	Z519_08947T0	92.86	322	23	0	1	322	4	325	0	609
4	A105_12786T0	Z519_12801T0	92.86	294	21	0	1	294	1	294	0	553
1	A105_13299T0	Z519_05033T0	92.86	210	15	0	1	210	1	210	9.00E-140	400
8	A105_00433T0	Z519_00439T0	92.87	743	52	1	1	742	1	743	0	1347
57	A105_04491T0	Z519_02318T0	92.87	603	43	0	1	603	1	603	0	1167
6	A105_05313T0	Z519_08188T0	92.87	435	11	1	1	415	1	435	0	827
4	A105_06295T0	Z519_10727T0	92.87	687	49	0	1	687	1	687	0	1296

11	A105_06383T0	Z519_10657T0	92.87	589	42	0	20	608	21	609	0	1105
24	A105_09689T0	Z519_10518T0	92.87	435	31	0	1	435	1	435	0	815
4	A105_01999T0	Z519_01461T0	92.88	716	49	2	1	716	1	714	0	1318
1	A105_04383T0	Z519_02210T0	92.88	941	45	3	1	941	1	919	0	1756
1	A105_04818T0	Z519_02643T0	92.88	829	51	1	1	821	1	829	0	1563
3	A105_05981T0	Z519_04755T0	92.88	1193	78	4	1	1187	1	1192	0	1899
50	A105_06710T0	Z519_08959T0	92.88	365	11	1	1	350	1	365	0	666
1	A105_08169T0	Z519_09393T0	92.88	534	38	0	36	569	1	534	0	974
1	A105_08516T0	Z519_05535T0	92.88	365	25	1	1	364	1	365	0	615
1	A105_08936T0	Z519_05039T0	92.88	267	19	0	1	267	1	267	4.00E-177	492
15	A105_11399T0	Z519_02060T0	92.88	576	41	0	1	576	1	576	0	1117
1	A105_11866T0	Z519_01970T0	92.88	1124	79	1	1	1123	1	1124	0	2144
68	A105_12310T0	Z519_12397T0	92.88	730	51	1	34	763	24	752	0	1392
32	A105_00422T0	Z519_00424T0	92.89	408	27	2	265	671	1	407	0	771
1	A105_01061T0	Z519_00983T0	92.89	225	16	0	22	246	22	246	9.00E-155	433
143	A105_03442T0	Z519_10264T0	92.89	605	34	1	1	605	1	596	0	1147
9	A105_03467T0	Z519_09592T0	92.89	408	29	0	3	410	2	409	0	793
1	A105_04629T0	Z519_02456T0	92.89	225	16	0	1	225	1	225	1.00E-152	426
1	A105_07067T0	Z519_06433T0	92.89	225	16	0	1	225	1	225	2.00E-151	423
2	A105_11368T0	Z519_02090T0	92.89	422	24	2	1	416	1	422	0	771
25	A105_00129T0	Z519_00130T0	92.9	563	40	0	1	563	1	563	0	1079
3	A105_04085T0	Z519_03360T0	92.9	155	11	0	1	155	115	269	6.00E-98	291
1	A105_04949T0	Z519_02773T0	92.9	324	23	0	1	324	1	324	0	573
7	A105_06229T0	Z519_10782T0	92.9	366	16	1	2	367	98	453	0	715
2	A105_08176T0	Z519_09400T0	92.9	366	25	1	1	366	1	365	0	553
3	A105_08489T0	Z519_05562T0	92.9	183	13	0	1	183	1	183	7.00E-114	324
152	A105_11095T0	Z519_06895T0	92.9	535	20	1	1	517	1	535	0	999
22	A105_12470T0	Z519_12648T0	92.9	366	14	1	1	354	1	366	0	683
15	A105_12648T0	Z519_05388T0	92.9	310	22	0	1	310	6	315	0	595
1	A105_00305T0	Z519_00314T0	92.91	1030	69	1	1	1026	579	1608	0	1996
8	A105_02610T0	Z519_07138T0	92.91	987	62	1	1	979	1	987	0	1912
41	A105_05670T0	Z519_11179T0	92.91	649	41	1	9	652	10	658	0	1251
1	A105_07949T0	Z519_07791T0	92.91	296	17	1	1	292	1	296	0	567
1	A105_08845T0	Z519_03808T0	92.91	296	21	0	1	296	1	296	0	511
25	A105_09602T0	Z519_01006T0	92.91	663	47	0	1	663	18	680	0	1273

1	A105_09696T0	Z519_10511T0	92.91	550	39	0	1	550	1	550	0	1028
157	A105_10403T0	Z519_11281T0	92.91	141	9	1	353	493	30	169	1.00E-87	269
11	A105_10415T0	Z519_11291T0	92.91	268	15	1	1	268	240	503	0	521
1	A105_11054T0	Z519_06855T0	92.91	409	28	1	53	461	19	426	0	772
23	A105_00145T0	Z519_00146T0	92.92	565	40	0	1	565	1	565	0	1095
1	A105_04497T0	Z519_02324T0	92.92	466	29	1	1	462	1	466	0	860
45	A105_09949T0	Z519_04197T0	92.92	664	47	0	4	667	1	664	0	1283
1	A105_00083T0	Z519_00082T0	92.93	283	20	0	1	283	1	283	0	516
1	A105_00918T0	Z519_00853T0	92.93	1670	112	1	1	1670	1	1664	0	3085
89	A105_01192T0	Z519_08459T0	92.93	509	35	1	1	508	1	509	0	945
2	A105_01351T0	Z519_11918T0	92.93	283	20	0	1	283	1	283	0	549
5	A105_02275T0	Z519_11701T0	92.93	198	14	0	1	198	185	382	1.00E-127	376
10	A105_05865T0	Z519_04869T0	92.93	693	40	1	1	693	1	684	0	1325
8	A105_08323T0	Z519_09538T0	92.93	481	34	0	1	481	1	481	0	937
1	A105_02136T0	Z519_01342T0	92.94	354	25	0	1	354	1	354	0	651
1	A105_05139T0	Z519_08029T0	92.94	269	19	0	1	269	1	269	0	524
2	A105_05587T0	Z519_03699T0	92.94	269	9	2	1	269	1	259	6.00E-155	435
1	A105_05596T0	Z519_03705T0	92.94	269	19	0	1	269	107	375	2.00E-174	489
6	A105_06379T0	Z519_10661T0	92.94	170	12	0	17	186	2	171	1.00E-111	318
1	A105_07194T0	Z519_06306T0	92.94	340	23	1	1	339	1	340	0	618
1	A105_07200T0	Z519_06300T0	92.94	255	18	0	1	255	1	255	2.00E-157	441
1	A105_06761T0	Z519_06745T0	92.95	468	32	1	1	467	1	468	0	845
1	A105_08492T0	Z519_05559T0	92.95	298	21	0	1	298	1	298	0	577
2	A105_12285T0	Z519_04469T0	92.95	241	17	0	1	241	8	248	2.00E-162	453
34	A105_00524T0	Z519_00531T0	92.96	597	42	0	1	597	1	597	0	1154
1	A105_01700T0	Z519_01722T0	92.96	469	33	0	1	469	1	469	0	873
4	A105_02073T0	Z519_01405T0	92.96	398	28	0	1	398	490	887	0	602
1	A105_04016T0	Z519_03311T0	92.96	753	53	0	1	753	1	753	0	1353
1	A105_06788T0	Z519_06717T0	92.96	398	28	0	1	398	194	591	0	777
2	A105_09832T0	Z519_10385T0	92.96	639	26	2	1	621	1	638	0	1210
1	A105_11338T0	Z519_02121T0	92.96	398	28	0	1	398	1	398	0	754
1	A105_13093T0	Z519_11223T0	92.96	142	10	0	1	142	1	142	3.00E-84	251
1	A105_00325T0	Z519_00335T0	92.97	782	42	1	1	782	1	769	0	1447
1	A105_02103T0	Z519_01377T0	92.97	128	9	0	1	128	1	128	8.00E-84	249
1	A105_08380T0	Z519_05664T0	92.97	583	41	0	1	583	1	583	0	969

1	A105_10157T0	Z519_12696T0	92.97	640	41	1	25	664	5	640	0	1144
1	A105_11878T0	Z519_01982T0	92.97	526	37	0	1	526	1	526	0	888
1	A105_13068T0	Z519_12132T0	92.97	569	33	1	1	562	1	569	0	1102
1	A105_00600T0	Z519_00610T0	92.98	114	8	0	1	114	1	114	2.00E-73	216
35	A105_01053T0	Z519_00976T0	92.98	598	42	0	1	598	1	598	0	1166
1	A105_01609T0	Z519_01809T0	92.98	228	14	1	1	226	1	228	3.00E-155	433
2	A105_08724T0	Z519_03934T0	92.98	356	25	0	1	356	1	356	0	617
1	A105_08774T0	Z519_03882T0	92.98	228	16	0	1	228	5	232	6.00E-153	427
172	A105_01582T0	Z519_01825T0	92.99	271	19	0	1	271	1	271	0	511
1	A105_03183T0	Z519_10034T0	92.99	271	19	0	1	271	1	271	0	507
17	A105_06100T0	Z519_04638T0	92.99	585	33	1	1	585	1	577	0	1055
80	A105_06910T0	Z519_06589T0	92.99	785	54	1	1	784	1	785	0	1473
2	A105_07113T0	Z519_06387T0	92.99	528	37	0	21	548	14	541	0	1026
1	A105_08010T0	Z519_07846T0	92.99	157	10	1	1	156	1	157	1.00E-89	261
2	A105_09681T0	Z519_10526T0	92.99	442	31	0	1	442	1	442	0	820
1	A105_12283T0	Z519_04471T0	92.99	585	41	0	1	585	1	585	0	1022
19	A105_01951T0	Z519_01508T0	93	300	11	1	1	300	9	298	0	561
31	A105_04687T0	Z519_02517T0	93	557	39	0	1	557	9	565	0	1052
1	A105_05445T0	Z519_08322T0	93	243	17	0	1	243	1	243	7.00E-144	405
6	A105_00263T0	Z519_00272T0	93.01	515	36	0	1	515	1	515	0	986
3	A105_02731T0	Z519_07265T0	93.01	501	35	0	1	501	1	501	0	926
1	A105_03670T0	Z519_02990T0	93.01	272	19	0	1	272	1	272	8.00E-136	387
1	A105_07730T0	Z519_07545T0	93.01	415	29	0	1	415	1	415	0	712
1	A105_08212T0	Z519_09434T0	93.01	186	13	0	1	186	1	186	5.00E-130	365
1	A105_00896T0	Z519_00845T0	93.02	315	22	0	1	315	1	315	0	599
4	A105_01182T0	Z519_08450T0	93.02	315	22	0	1	315	1	315	0	616
1	A105_02516T0	Z519_07050T0	93.02	258	18	0	1	258	1	258	3.00E-169	473
5	A105_03858T0	Z519_03176T0	93.02	444	27	1	1	444	1	440	0	825
1	A105_07169T0	Z519_06332T0	93.02	688	33	1	1	688	1	673	0	1305
3	A105_07298T0	Z519_05874T0	93.02	301	21	0	5	305	11	311	0	576
2	A105_08901T0	Z519_03752T0	93.02	573	34	1	1	567	1	573	0	886
1	A105_09209T0	Z519_05322T0	93.02	86	6	0	1	86	74	159	4.00E-54	168
47	A105_10864T0	Z519_11402T0	93.02	745	48	1	1	745	1	741	0	1446
1	A105_10926T0	Z519_11465T0	93.02	258	18	0	1	258	1	258	5.00E-154	432
1	A105_01958T0	Z519_01501T0	93.03	244	17	0	1	244	199	442	5.00E-168	474

1	A105_02454T0	Z519_06986T0	93.03	646	25	2	1	626	1	646	0	1224
6	A105_07789T0	Z519_07604T0	93.03	445	29	1	1	445	2	444	0	769
1	A105_09813T0	Z519_10407T0	93.03	416	29	0	1	416	1	416	0	747
1	A105_11893T0	Z519_01996T0	93.03	287	20	0	24	310	2	288	0	533
1	A105_02002T0	Z519_01458T0	93.04	345	23	1	1	344	1	345	0	608
1	A105_03748T0	Z519_03070T0	93.04	115	8	0	1	115	1	115	7.00E-78	228
1	A105_05954T0	Z519_04781T0	93.04	158	11	0	58	215	1	158	4.00E-98	285
1	A105_06969T0	Z519_06527T0	93.04	388	27	0	1	388	1	388	0	729
5	A105_06986T0	Z519_06513T0	93.04	431	30	0	1	431	1	431	0	831
1	A105_07090T0	Z519_06409T0	93.04	230	16	0	1	230	1	230	4.00E-136	385
1	A105_07905T0	Z519_07735T0	93.04	632	44	0	1	632	1	632	0	1117
1	A105_08194T0	Z519_09418T0	93.04	388	23	1	1	384	1	388	0	689
5	A105_09945T0	Z519_04202T0	93.04	460	32	0	1	460	1	460	0	890
1	A105_09948T0	Z519_04198T0	93.04	934	57	3	1	928	1	932	0	1686
1	A105_12033T0	Z519_05696T0	93.04	273	19	0	1	273	1	273	0	531
1	A105_00133T0	Z519_00134T0	93.05	518	36	0	1	518	1	518	0	1006
2	A105_09283T0	Z519_01282T0	93.05	532	37	0	1	532	1	532	0	1005
14	A105_12422T0	Z519_06254T0	93.05	302	20	1	296	597	1	301	0	565
75	A105_12527T0	Z519_02858T0	93.05	590	41	0	1	590	1	590	0	1159
27	A105_13203T0	Z519_12489T0	93.05	446	22	1	1	446	1	437	0	769
47	A105_01062T0	Z519_00984T0	93.06	605	39	1	1	605	1	602	0	1112
1	A105_01859T0	Z519_01605T0	93.06	173	12	0	1	173	1	173	4.00E-112	320
19	A105_01928T0	Z519_01532T0	93.06	432	30	0	1	432	1	432	0	811
2	A105_04130T0	Z519_03409T0	93.06	504	29	1	1	504	1	498	0	969
1	A105_04409T0	Z519_02240T0	93.06	418	28	1	1	418	1	417	0	755
1	A105_04848T0	Z519_02672T0	93.06	490	29	3	1	489	1	486	0	902
4	A105_04851T0	Z519_02675T0	93.06	245	17	0	1	245	1	245	2.00E-165	460
1	A105_06811T0	Z519_06688T0	93.06	346	24	0	1	346	1	346	0	667
1	A105_08576T0	Z519_04067T0	93.06	389	24	2	1	389	1	386	0	642
3	A105_10744T0	Z519_09932T0	93.06	389	27	0	1	389	1	389	0	695
1	A105_11737T0	Z519_02943T0	93.06	360	25	0	1	360	1	360	0	609
3	A105_01261T0	Z519_08527T0	93.07	563	35	1	1	559	1	563	0	1077
61	A105_01565T0	Z519_01856T0	93.07	649	40	1	31	674	54	702	0	1220
22	A105_03216T0	Z519_10066T0	93.07	895	60	1	1	895	1	893	0	1737
1	A105_04397T0	Z519_02228T0	93.07	202	14	0	1	202	1	202	5.00E-119	339

17	A105_10335T0	Z519_11002T0	93.07	895	61	1	1	894	1	895	0	1626
1	A105_13036T0	Z519_04454T0	93.07	606	42	0	1	606	1	606	0	1097
1	A105_13141T0	Z519_04381T0	93.07	375	26	0	1	375	1	375	0	728
1	A105_04088T0	Z519_03362T0	93.08	130	9	0	1	130	181	310	3.00E-73	223
3	A105_05522T0	Z519_03638T0	93.08	535	37	0	1	535	1	535	0	1002
1	A105_09843T0	Z519_10374T0	93.08	260	15	1	1	260	1	257	0	502
2	A105_10854T0	Z519_11392T0	93.08	159	11	0	1	159	1	159	3.00E-108	308
1	A105_11559T0	Z519_11537T0	93.08	824	55	1	1	822	1	824	0	1493
2	A105_13345T0	Z519_09324T0	93.08	477	31	1	1	475	56	532	0	905
1	A105_00157T0	Z519_00157T0	93.09	564	39	0	1	564	86	649	0	1047
1	A105_03283T0	Z519_10131T0	93.09	492	27	1	1	492	1	485	0	900
3	A105_03736T0	Z519_03056T0	93.09	333	21	1	1	331	1	333	0	624
1	A105_07182T0	Z519_06318T0	93.09	405	28	0	1	405	1	405	0	777
1	A105_11002T0	Z519_06798T0	93.09	463	32	0	1	463	1	463	0	825
13	A105_12533T0	Z519_02864T0	93.09	405	28	0	1	405	1	405	0	786
1	A105_13022T0	Z519_04439T0	93.09	246	17	0	1	246	1	246	8.00E-158	441
86	A105_01353T0	Z519_11916T0	93.1	493	15	2	1	493	1	474	0	889
23	A105_01986T0	Z519_01473T0	93.1	478	33	0	1	478	1	478	0	918
10	A105_05538T0	Z519_03654T0	93.1	754	33	1	1	735	1	754	0	1438
2	A105_06804T0	Z519_06699T0	93.1	174	12	0	1	174	1	174	1.00E-118	336
2	A105_07043T0	Z519_06459T0	93.1	507	30	1	1	507	1	502	0	956
2	A105_09566T0	Z519_01030T0	93.1	232	15	1	1	232	1	231	1.00E-109	318
1	A105_09626T0	Z519_10579T0	93.1	116	8	0	1	116	1	116	1.00E-67	202
1	A105_12229T0	Z519_04524T0	93.1	87	6	0	1	87	659	745	3.00E-44	151
1	A105_02273T0	Z519_11704T0	93.11	508	35	0	1	508	1	508	0	805
1	A105_06138T0	Z519_04599T0	93.11	305	20	1	1	305	32	335	0	521
1	A105_09277T0	Z519_01289T0	93.11	639	43	1	1	638	1	639	0	1174
3	A105_10302T0	Z519_10967T0	93.11	479	33	0	1	479	1	479	0	882
1	A105_11707T0	Z519_02972T0	93.11	740	47	2	1	736	1	740	0	1370
2	A105_12581T0	Z519_05462T0	93.11	944	64	1	1	944	1	943	0	1787
1	A105_01526T0	Z519_01893T0	93.12	320	22	0	1	320	1	320	0	617
1	A105_03135T0	Z519_09989T0	93.12	218	15	0	12	229	5	222	4.00E-124	354
4	A105_03329T0	Z519_10153T0	93.12	320	22	0	1	320	1	320	0	583
1	A105_04094T0	Z519_03367T0	93.12	189	13	0	14	202	14	202	6.00E-127	359
1	A105_06605T0	Z519_09059T0	93.12	247	17	0	1	247	1	247	9.00E-145	408

7	A105_06824T0	Z519_06677T0	93.12	320	13	1	1	320	1	311	0	609
2	A105_07708T0	Z519_07531T0	93.12	509	35	0	1	509	1	509	0	987
3	A105_07725T0	Z519_07540T0	93.12	581	40	0	1	581	1	581	0	1098
2	A105_10476T0	Z519_11352T0	93.12	640	43	1	1	640	1	639	0	1170
1	A105_11227T0	Z519_08853T0	93.12	349	22	1	1	349	1	347	0	673
2	A105_02969T0	Z519_12060T0	93.13	801	49	1	1	795	1	801	0	1475
9	A105_03002T0	Z519_12027T0	93.13	393	26	1	1	392	1	393	0	741
1	A105_05255T0	Z519_08126T0	93.13	262	18	0	1	262	1	262	0	503
3	A105_06496T0	Z519_09168T0	93.13	291	19	1	1	291	1	290	0	560
3	A105_07196T0	Z519_06304T0	93.13	903	62	0	1	903	1	903	0	1730
29	A105_08134T0	Z519_09356T0	93.13	451	31	0	1	451	1	451	0	868
1	A105_09513T0	Z519_01076T0	93.13	291	20	0	1	291	1	291	0	521
1	A105_12474T0	Z519_12644T0	93.13	801	53	1	1	799	1	801	0	1466
20	A105_12510T0	Z519_02843T0	93.13	655	43	1	1	653	1	655	0	1234
20	A105_02344T0	Z519_11626T0	93.14	831	54	2	1	830	1	829	0	1598
1	A105_02417T0	Z519_06945T0	93.14	306	21	0	1	306	1	306	0	547
144	A105_08939T0	Z519_05042T0	93.14	554	29	1	1	545	1	554	0	1052
1	A105_02752T0	Z519_07285T0	93.15	73	5	0	1	73	1	73	1.00E-40	144
1	A105_04718T0	Z519_02548T0	93.15	467	32	0	1	467	1	467	0	898
5	A105_05234T0	Z519_08107T0	93.15	292	20	0	1	292	1	292	0	558
1	A105_05264T0	Z519_08137T0	93.15	73	5	0	1	73	1	73	2.00E-44	139
5	A105_05851T0	Z519_04882T0	93.15	336	23	0	1	336	1	336	0	645
1	A105_06830T0	Z519_06671T0	93.15	292	20	0	25	316	41	332	6.00E-171	483
11	A105_06905T0	Z519_06594T0	93.15	861	59	0	127	987	1	861	0	1635
1	A105_09687T0	Z519_10520T0	93.15	496	34	0	47	542	1	496	0	944
3	A105_13350T0	Z519_09320T0	93.15	146	10	0	1	146	958	1103	1.00E-82	276
5	A105_00623T0	Z519_00633T0	93.16	453	29	1	14	466	22	472	0	820
1	A105_01496T0	Z519_01918T0	93.16	190	13	0	1	190	1	190	7.00E-120	340
1	A105_02086T0	Z519_01393T0	93.16	307	21	0	1	307	1	307	7.00E-180	504
58	A105_02210T0	Z519_11765T0	93.16	307	12	1	1	307	1	298	0	592
9	A105_09923T0	Z519_06735T0	93.16	453	31	0	1	453	1	453	0	874
1	A105_10673T0	Z519_09860T0	93.16	1038	65	1	1	1038	1	1032	0	1895
5	A105_11268T0	Z519_08809T0	93.16	395	27	0	1	395	1	395	0	623
3	A105_11994T0	Z519_05737T0	93.16	643	44	0	1	643	1	643	0	1238
1	A105_01006T0	Z519_00932T0	93.17	439	26	1	1	439	1	435	0	795

8	A105_02827T0	Z519_07358T0	93.17	293	17	1	1	293	1	290	0	533
1	A105_03689T0	Z519_03008T0	93.17	879	57	2	1	879	1	876	0	1679
10	A105_05698T0	Z519_11152T0	93.17	322	22	0	34	355	18	339	0	632
1	A105_07971T0	Z519_07809T0	93.17	249	17	0	1	249	1	249	2.00E-170	473
111	A105_08791T0	Z519_03867T0	93.17	556	38	0	131	686	1	556	0	1063
39	A105_12530T0	Z519_02861T0	93.17	630	36	2	1	629	1	624	0	1215
1	A105_13427T0	Z519_12302T0	93.17	747	51	0	1	747	1	747	0	1321
16	A105_00539T0	Z519_00549T0	93.18	308	21	0	1	308	1	308	0	584
1	A105_01370T0	Z519_11899T0	93.18	381	25	1	1	380	1	381	0	740
1	A105_04974T0	Z519_02798T0	93.18	689	47	0	1	689	1	689	0	1321
1	A105_05968T0	Z519_04767T0	93.18	176	11	1	1	176	1	175	5.00E-100	288
1	A105_07784T0	Z519_07599T0	93.18	176	12	0	1	176	1	176	6.00E-123	347
5	A105_07885T0	Z519_07716T0	93.18	352	24	0	1	352	1	352	0	662
1	A105_08126T0	Z519_09349T0	93.18	484	31	1	1	484	1	482	0	862
23	A105_10026T0	Z519_04142T0	93.18	352	24	0	1	352	1	352	0	676
1	A105_00396T0	Z519_00398T0	93.19	382	26	0	1	382	1	382	0	687
1	A105_00827T0	Z519_00773T0	93.19	558	38	0	1	558	1	558	0	1042
1	A105_01431T0	Z519_11837T0	93.19	426	29	0	1	426	1	426	0	755
1	A105_01963T0	Z519_01496T0	93.19	279	19	0	1	279	1	279	0	511
20	A105_03381T0	Z519_10202T0	93.19	573	29	1	1	563	1	573	0	1071
1	A105_04798T0	Z519_02626T0	93.19	426	29	0	1	426	1	426	0	791
1	A105_07631T0	Z519_06193T0	93.19	529	33	1	1	526	1	529	0	968
1	A105_01961T0	Z519_01498T0	93.2	206	14	0	1	206	1	206	4.00E-141	395
4	A105_07356T0	Z519_05928T0	93.2	338	23	0	1	338	1	338	0	633
1	A105_00541T0	Z519_00551T0	93.21	471	25	1	15	485	15	478	0	826
24	A105_02771T0	Z519_07303T0	93.21	1458	96	1	1	1458	1	1455	0	2757
1	A105_03660T0	Z519_02981T0	93.21	677	25	1	1	656	1	677	0	1247
11	A105_03799T0	Z519_03120T0	93.21	839	53	3	2	839	11	846	0	1573
3	A105_05059T0	Z519_07950T0	93.21	471	32	0	1	471	1	471	0	915
7	A105_06235T0	Z519_10776T0	93.21	280	12	1	1	280	1	273	2.00E-172	481
1	A105_06695T0	Z519_08974T0	93.21	957	26	2	1	918	1	957	0	1810
1	A105_09517T0	Z519_01071T0	93.21	781	39	1	1	781	1	767	0	957
36	A105_01915T0	Z519_01546T0	93.22	737	50	0	3	739	18	754	0	1395
1	A105_02226T0	Z519_11749T0	93.22	354	12	1	1	342	5	358	0	571
17	A105_02690T0	Z519_07223T0	93.22	295	19	1	1	294	1	295	0	549

2	A105_06769T0	Z519_06731T0	93.22	708	47	1	1	708	1	707	0	1257
35	A105_08133T0	Z519_09356T0	93.22	472	32	0	1	472	456	927	0	920
58	A105_09288T0	Z519_01277T0	93.22	723	48	1	1	722	1	723	0	1394
1	A105_09810T0	Z519_10410T0	93.22	177	12	0	1	177	1	177	2.00E-120	341
5	A105_10983T0	Z519_11516T0	93.22	723	49	0	1	723	1	723	0	1373
12	A105_11038T0	Z519_06838T0	93.22	575	39	0	1	575	1	575	0	1063
2	A105_00142T0	Z519_00143T0	93.23	517	9	2	1	508	1	500	0	952
3	A105_01669T0	Z519_01747T0	93.23	384	25	1	1	383	1	384	0	735
1	A105_03824T0	Z519_03142T0	93.23	192	12	1	1	192	1	191	3.00E-103	298
7	A105_05220T0	Z519_08094T0	93.23	266	18	0	1	266	1	266	0	510
3	A105_10548T0	Z519_12595T0	93.23	251	17	0	13	263	13	263	1.00E-169	473
1	A105_01962T0	Z519_01497T0	93.24	74	5	0	27	100	1	74	2.00E-44	141
2	A105_03444T0	Z519_10266T0	93.24	355	24	0	1	355	1	355	0	672
1	A105_07816T0	Z519_07631T0	93.24	636	42	1	1	636	1	635	0	1216
1	A105_08451T0	Z519_05601T0	93.24	296	16	3	1	293	1	295	0	526
1	A105_09900T0	Z519_10317T0	93.24	370	25	0	1	370	1	370	0	701
2	A105_10788T0	Z519_12278T0	93.24	296	20	0	1	296	1	296	0	540
1	A105_12868T0	Z519_07471T0	93.24	429	23	2	1	429	1	423	0	684
2	A105_12948T0	Z519_11087T0	93.24	370	22	1	1	370	1	367	2.00E-179	507
4	A105_13359T0	Z519_09300T0	93.24	148	7	1	1	148	77	221	5.00E-97	282
7	A105_00764T0	Z519_00756T0	93.25	696	26	1	1	675	1	696	0	1352
1	A105_05044T0	Z519_07935T0	93.25	593	40	0	1	593	1	593	0	1133
100	A105_08641T0	Z519_04017T0	93.25	622	31	2	12	627	1	617	0	1206
1	A105_10957T0	Z519_11494T0	93.25	755	43	6	1	754	1	748	0	1240
1	A105_01015T0	Z519_00940T0	93.26	178	12	0	1	178	210	387	1.00E-119	352
1	A105_06841T0	Z519_06661T0	93.26	430	29	0	1	430	1	430	0	793
9	A105_06874T0	Z519_06626T0	93.26	371	25	0	1	371	1	371	0	699
1	A105_07849T0	Z519_07678T0	93.26	193	13	0	1	193	1	193	6.00E-132	371
1	A105_07983T0	Z519_07819T0	93.26	861	58	0	1	861	1	861	0	1672
21	A105_10801T0	Z519_12266T0	93.26	341	23	0	1	341	1	341	0	640
13	A105_12604T0	Z519_05438T0	93.26	579	39	0	2	580	37	615	0	1106
42	A105_03288T0	Z519_10136T0	93.27	297	20	0	1	297	1	297	0	554
1	A105_03548T0	Z519_09671T0	93.27	401	27	0	1	401	1	401	0	756
2	A105_04304T0	Z519_03584T0	93.27	683	44	2	4	686	6	686	0	1295
1	A105_05492T0	Z519_03610T0	93.27	490	33	0	1	490	1	490	0	872

29	A105_07723T0	Z519_07538T0	93.27	624	42	0	1	624	1	624	0	1211
4	A105_07776T0	Z519_07590T0	93.27	1367	89	2	1	1367	1	1364	0	2614
1	A105_07941T0	Z519_07783T0	93.27	104	7	0	53	156	52	155	2.00E-53	168
16	A105_08080T0	Z519_04320T0	93.27	609	24	1	27	635	29	620	0	1127
1	A105_12273T0	Z519_04481T0	93.27	1457	95	1	1	1454	1	1457	0	2617
8	A105_12647T0	Z519_05389T0	93.27	312	21	0	1	312	1	312	0	589
1	A105_00649T0	Z519_00648T0	93.28	238	15	1	1	238	1	237	9.00E-160	445
7	A105_02840T0	Z519_07370T0	93.28	729	46	1	1	729	1	726	0	1329
10	A105_05577T0	Z519_03690T0	93.28	253	16	1	1	253	13	264	7.00E-176	488
1	A105_06416T0	Z519_10625T0	93.28	387	26	0	1	387	1	387	0	710
25	A105_08256T0	Z519_09478T0	93.28	685	46	0	1	685	1	685	0	1270
1	A105_08954T0	Z519_05057T0	93.28	134	9	0	1	134	1	134	7.00E-87	256
2	A105_10425T0	Z519_11301T0	93.28	387	23	1	1	384	1	387	0	753
9	A105_00955T0	Z519_00889T0	93.29	417	28	0	1	417	97	513	0	821
47	A105_02425T0	Z519_06953T0	93.29	641	43	0	1	641	1	641	0	1255
153	A105_02751T0	Z519_07284T0	93.29	507	21	4	1	501	114	613	0	932
1	A105_02889T0	Z519_07420T0	93.29	507	30	1	1	507	1	503	0	952
1	A105_04061T0	Z519_03338T0	93.29	343	23	0	1	343	1	343	0	630
9	A105_05440T0	Z519_08317T0	93.29	298	20	0	1	298	1	298	0	578
8	A105_05765T0	Z519_04972T0	93.29	283	19	0	5	287	77	359	0	540
5	A105_08412T0	Z519_05638T0	93.29	149	10	0	1	149	268	416	7.00E-99	297
1	A105_09132T0	Z519_05243T0	93.29	343	23	0	1	343	1	343	0	644
2	A105_09779T0	Z519_10441T0	93.29	566	37	1	1	566	1	565	0	1087
3	A105_11178T0	Z519_08900T0	93.29	283	19	0	1	283	1	283	0	536
1	A105_12034T0	Z519_05694T0	93.29	343	20	1	2	344	12	351	0	620
2	A105_12189T0	Z519_04560T0	93.29	507	34	0	1	507	1	507	0	893
3	A105_12927T0	Z519_11065T0	93.29	581	37	2	1	579	1	581	0	1096
3	A105_13167T0	Z519_04357T0	93.29	894	44	1	1	894	1	878	0	1734
43	A105_00212T0	Z519_00213T0	93.3	552	36	1	1	552	296	846	0	1072
17	A105_00718T0	Z519_00710T0	93.3	582	39	0	1	582	1	582	0	1130
1	A105_05086T0	Z519_07976T0	93.3	358	24	0	1	358	1	358	0	664
4	A105_07181T0	Z519_06319T0	93.3	388	26	0	1	388	1	388	0	758
5	A105_08349T0	Z519_09563T0	93.3	403	27	0	164	566	1	403	0	773
2	A105_12877T0	Z519_07480T0	93.3	1179	73	3	1	1176	1	1176	0	2132
1	A105_00690T0	Z519_00684T0	93.31	359	24	0	1	359	1	359	0	709

2	A105_01833T0	Z519_01629T0	93.31	508	32	1	1	506	1	508	0	951
2	A105_02509T0	Z519_07043T0	93.31	703	47	0	1	703	358	1060	0	1301
1	A105_03076T0	Z519_11962T0	93.31	329	22	0	12	340	274	602	0	639
1	A105_03656T0	Z519_09784T0	93.31	344	19	1	1	344	1	340	0	628
22	A105_03749T0	Z519_03072T0	93.31	553	37	0	1	553	1	553	0	1077
2	A105_05058T0	Z519_07949T0	93.31	344	23	0	1	344	1	344	0	627
12	A105_05499T0	Z519_03615T0	93.31	762	51	0	1	762	1	762	0	1467
1	A105_06877T0	Z519_06623T0	93.31	359	23	1	192	550	192	549	2.00E-160	475
2	A105_08976T0	Z519_05080T0	93.31	508	33	1	1	507	1	508	0	809
3	A105_12636T0	Z519_05401T0	93.31	329	22	0	1	329	1	329	0	637
3	A105_12919T0	Z519_11058T0	93.31	329	22	0	1	329	1	329	0	598
4	A105_03597T0	Z519_09725T0	93.32	464	31	0	1	464	1	464	0	866
36	A105_05006T0	Z519_12210T0	93.32	1093	53	1	1	1093	15	1087	0	2112
3	A105_05805T0	Z519_04928T0	93.32	763	34	1	1	746	1	763	0	1363
2	A105_05880T0	Z519_04854T0	93.32	779	49	1	1	779	1	776	0	1318
1	A105_09321T0	Z519_01244T0	93.32	733	16	3	1	701	1	732	0	1217
1	A105_13199T0	Z519_12485T0	93.32	659	44	0	1	659	1	659	0	1157
1	A105_02431T0	Z519_06961T0	93.33	240	16	0	1	240	1	240	5.00E-168	466
1	A105_04544T0	Z519_02371T0	93.33	285	16	1	1	285	1	282	0	505
1	A105_04673T0	Z519_02502T0	93.33	135	9	0	1	135	22	156	1.00E-88	257
2	A105_04892T0	Z519_02716T0	93.33	780	42	2	1	774	1	776	0	1500
1	A105_04907T0	Z519_02733T0	93.33	75	5	0	1	75	1	75	6.00E-45	141
1	A105_05189T0	Z519_08078T0	93.33	120	8	0	74	193	13	132	2.00E-63	196
1	A105_05816T0	Z519_04917T0	93.33	150	10	0	1	150	115	264	1.00E-100	292
2	A105_06403T0	Z519_10638T0	93.33	435	29	0	1	435	1	435	0	844
3	A105_07745T0	Z519_07559T0	93.33	480	32	0	1	480	628	1107	0	924
4	A105_07845T0	Z519_07674T0	93.33	300	10	1	1	290	1	300	0	566
2	A105_08287T0	Z519_09508T0	93.33	120	8	0	1	120	1	120	1.00E-80	235
1	A105_08956T0	Z519_05059T0	93.33	330	22	0	216	545	229	558	0	557
7	A105_12768T0	Z519_10827T0	93.33	465	31	0	1	465	1	465	0	862
51	A105_02097T0	Z519_01383T0	93.34	631	42	0	1	631	1	631	0	1163
9	A105_06250T0	Z519_10762T0	93.34	616	41	0	1	616	1	616	0	1194
5	A105_00597T0	Z519_00607T0	93.35	1369	82	5	1	1365	1	1364	0	2370
3	A105_01972T0	Z519_01487T0	93.35	436	29	0	1	436	1	436	0	835
19	A105_04905T0	Z519_02731T0	93.35	647	42	1	1	646	1	647	0	1206

2	A105_05583T0	Z519_03695T0	93.35	316	20	1	1	316	1	315	0	597
9	A105_05607T0	Z519_03715T0	93.35	376	25	0	1	376	112	487	0	694
3	A105_05876T0	Z519_04858T0	93.35	436	8	2	1	416	49	483	0	814
5	A105_06426T0	Z519_10615T0	93.35	346	23	0	1	346	1	346	0	647
22	A105_08816T0	Z519_03838T0	93.35	316	14	2	1	313	80	391	0	560
3	A105_09427T0	Z519_01159T0	93.35	556	37	0	1	556	1	556	0	1036
1	A105_10179T0	Z519_10845T0	93.35	346	23	0	28	373	2	347	0	622
10	A105_02195T0	Z519_01005T0	93.36	437	29	0	1	437	1	437	0	850
1	A105_03176T0	Z519_10025T0	93.36	271	14	2	99	367	1	269	1.00E-150	429
25	A105_03724T0	Z519_03044T0	93.36	738	49	0	1	738	1	738	0	1373
1	A105_06038T0	Z519_04700T0	93.36	256	14	1	1	253	1	256	5.00E-166	462
1	A105_07464T0	Z519_06031T0	93.36	286	19	0	1	286	1	286	0	527
1	A105_09651T0	Z519_10553T0	93.36	211	14	0	1	211	1	211	3.00E-144	404
60	A105_10434T0	Z519_11309T0	93.36	542	28	1	1	542	1	534	0	1044
1	A105_12279T0	Z519_04475T0	93.36	497	33	0	1	497	1	497	0	908
1	A105_13059T0	Z519_12123T0	93.36	211	14	0	1	211	1	211	3.00E-139	397
6	A105_01127T0	Z519_08400T0	93.37	483	32	0	1	483	1	483	0	943
3	A105_01877T0	Z519_01587T0	93.37	377	25	0	1	377	1	377	0	675
3	A105_03290T0	Z519_10138T0	93.37	558	34	1	1	555	1	558	0	1037
15	A105_04180T0	Z519_03458T0	93.37	347	23	0	1	347	1	347	0	667
7	A105_06876T0	Z519_06624T0	93.37	407	27	0	1	407	1	407	0	742
1	A105_07240T0	Z519_05818T0	93.37	1464	96	1	1	1464	1	1463	0	2489
1	A105_08389T0	Z519_05653T0	93.37	347	23	0	1	347	1	347	0	596
2	A105_09546T0	Z519_01050T0	93.37	181	12	0	1	181	1	181	2.00E-124	351
3	A105_10047T0	Z519_04119T0	93.37	347	21	2	1	347	1	345	2.00E-168	476
168	A105_10129T0	Z519_04279T0	93.37	483	30	1	1	481	1	483	0	930
1	A105_12041T0	Z519_05687T0	93.37	603	40	0	1	603	1	603	0	1179
3	A105_13075T0	Z519_11210T0	93.37	347	23	0	1	347	1	347	0	680
1	A105_00384T0	Z519_00386T0	93.38	272	17	1	40	310	7	278	2.00E-128	370
1	A105_07586T0	Z519_06149T0	93.38	816	54	0	1	816	1	816	0	1531
1	A105_09260T0	Z519_05368T0	93.38	393	23	1	1	393	1	390	0	690
1	A105_09475T0	Z519_01111T0	93.38	136	9	0	1	136	1	136	1.00E-88	256
5	A105_00687T0	Z519_00682T0	93.39	227	12	1	1	224	1	227	2.00E-152	426
7	A105_07982T0	Z519_07818T0	93.39	484	32	0	1	484	47	530	0	869
4	A105_09863T0	Z519_10354T0	93.39	832	54	1	1	831	1	832	0	1543

1	A105_10890T0	Z519_11429T0	93.39	439	27	2	1	437	19	457	0	783
24	A105_11375T0	Z519_02082T0	93.39	575	19	2	1	575	1	556	0	1001
1	A105_13035T0	Z519_04452T0	93.39	696	40	2	1	696	1	690	0	1210
1	A105_00596T0	Z519_00606T0	93.4	288	19	0	1	288	1	288	0	557
1	A105_04376T0	Z519_02203T0	93.4	212	11	2	22	231	268	478	3.00E-102	307
6	A105_05601T0	Z519_03709T0	93.4	318	21	0	1	318	353	670	0	596
2	A105_11349T0	Z519_02110T0	93.4	303	20	0	1	303	1	303	0	604
8	A105_11723T0	Z519_02956T0	93.4	697	46	0	1	697	1	697	0	1367
2	A105_01949T0	Z519_01510T0	93.41	167	11	0	1	167	1	167	4.00E-112	320
11	A105_02358T0	Z519_11613T0	93.41	531	31	1	26	552	26	556	0	1016
13	A105_03364T0	Z519_10186T0	93.41	410	27	0	1	410	1	410	0	778
1	A105_03731T0	Z519_03051T0	93.41	167	11	0	154	320	187	353	4.00E-109	324
10	A105_04660T0	Z519_02489T0	93.41	349	21	1	1	347	1	349	0	668
22	A105_06650T0	Z519_09017T0	93.41	531	35	0	1	531	1	531	0	1001
1	A105_09713T0	Z519_10495T0	93.41	622	41	0	1	622	57	678	0	1122
21	A105_10796T0	Z519_12271T0	93.41	607	40	0	1	607	1	607	0	1149
2	A105_00162T0	Z519_00162T0	93.42	441	28	1	1	441	1	440	0	808
28	A105_00270T0	Z519_00279T0	93.42	365	24	0	1	365	1	365	0	709
168	A105_01598T0	Z519_01817T0	93.42	319	21	0	1	319	1	319	0	607
2	A105_02653T0	Z519_07185T0	93.42	456	30	0	1	456	1	456	0	848
22	A105_03568T0	Z519_09690T0	93.42	562	37	0	1	562	1	562	0	1089
5	A105_03757T0	Z519_03080T0	93.42	562	35	1	1	562	1	560	0	1077
1	A105_04611T0	Z519_02439T0	93.42	76	5	0	1	76	1	76	1.00E-34	115
2	A105_07878T0	Z519_07708T0	93.42	805	40	5	1	802	1	795	0	1444
2	A105_08274T0	Z519_09495T0	93.42	1049	67	2	1	1049	1	1047	0	2018
15	A105_08325T0	Z519_09540T0	93.42	532	35	0	1	532	1	532	0	1030
2	A105_09329T0	Z519_01236T0	93.42	395	26	0	1	395	1	395	0	638
1	A105_09823T0	Z519_10394T0	93.42	304	19	1	1	304	90	392	0	576
5	A105_10006T0	Z519_04161T0	93.42	441	29	0	1	441	10	450	0	869
3	A105_12634T0	Z519_05403T0	93.42	441	13	1	1	441	44	468	0	839
8	A105_03591T0	Z519_09718T0	93.43	335	22	0	1	335	1	335	0	639
1	A105_07549T0	Z519_06112T0	93.43	731	28	1	1	731	1	711	0	1377
1	A105_10967T0	Z519_11500T0	93.43	213	14	0	1	213	1	213	2.00E-147	412
7	A105_11000T0	Z519_06796T0	93.43	335	22	0	1	335	1	335	0	626
20	A105_12652T0	Z519_05384T0	93.43	533	28	1	1	533	24	549	0	1021

4	A105_00119T0	Z519_00120T0	93.44	564	35	2	1	563	1	563	0	1061
5	A105_01217T0	Z519_08485T0	93.44	244	15	1	1	244	1	243	9.00E-148	416
1	A105_01650T0	Z519_01766T0	93.44	366	22	1	1	366	1	364	0	679
6	A105_02009T0	Z519_01448T0	93.44	366	24	0	1	366	1	366	0	717
3	A105_02705T0	Z519_07242T0	93.44	320	21	0	1	320	1	320	0	618
14	A105_04621T0	Z519_02448T0	93.44	1463	88	2	1	1462	1	1456	0	2739
1	A105_06740T0	Z519_06770T0	93.44	457	29	1	1	457	1	456	0	764
29	A105_07099T0	Z519_06401T0	93.44	320	21	0	1	320	1	320	0	617
55	A105_10348T0	Z519_11019T0	93.44	579	37	1	1	579	1	578	0	1111
1	A105_10688T0	Z519_09874T0	93.44	122	8	0	1	122	1	122	2.00E-79	232
61	A105_12429T0	Z519_06247T0	93.44	259	17	0	42	300	11	269	0	504
1	A105_13058T0	Z519_12122T0	93.44	183	12	0	1	183	1	183	1.00E-127	360
1	A105_00208T0	Z519_00210T0	93.45	351	23	0	1	351	1	351	0	680
2	A105_02669T0	Z519_07201T0	93.45	412	27	0	1	412	1	412	0	781
1	A105_05516T0	Z519_03630T0	93.45	519	34	0	1	519	1	519	0	913
5	A105_06354T0	Z519_10685T0	93.45	794	52	0	1	794	120	913	0	1533
4	A105_10000T0	Z519_04168T0	93.45	504	26	2	1	502	55	553	0	932
25	A105_10037T0	Z519_04129T0	93.45	1298	58	1	1	1271	1	1298	0	2442
1	A105_11403T0	Z519_02056T0	93.45	229	12	1	1	229	1	226	6.00E-155	432
12	A105_11753T0	Z519_02927T0	93.45	580	38	0	1	580	1	580	0	1138
1	A105_11861T0	Z519_01965T0	93.45	825	52	1	1	823	1	825	0	1548
6	A105_12022T0	Z519_05707T0	93.45	290	19	0	1	290	1	290	0	571
4	A105_00421T0	Z519_00423T0	93.46	153	10	0	1	153	1	153	2.00E-101	290
9	A105_01583T0	Z519_01824T0	93.46	306	20	0	1	306	1	306	0	597
2	A105_03580T0	Z519_09704T0	93.46	260	17	0	1	260	1	260	0	503
1	A105_04564T0	Z519_02391T0	93.46	260	17	0	1	260	1	260	1.00E-175	487
1	A105_05233T0	Z519_08106T0	93.46	719	44	1	6	724	46	761	0	1359
155	A105_05358T0	Z519_08232T0	93.46	566	30	2	1	561	1	564	0	993
1	A105_06123T0	Z519_04613T0	93.46	474	31	0	1	474	1	474	0	778
1	A105_09026T0	Z519_05131T0	93.46	153	10	0	1	153	1	153	5.00E-103	294
1	A105_10682T0	Z519_09868T0	93.46	306	20	0	105	410	308	613	0	592
1	A105_11158T0	Z519_08918T0	93.46	260	17	0	1	260	1	260	9.00E-154	432
1	A105_02526T0	Z519_07056T0	93.47	551	31	2	1	551	1	546	0	959
8	A105_05034T0	Z519_07924T0	93.47	704	36	1	1	694	77	780	0	1284
3	A105_09934T0	Z519_04213T0	93.47	551	36	0	1	551	1	551	0	1084

34	A105_10189T0	Z519_10854T0	93.47	659	43	0	1	659	666	1324	0	1188
1	A105_10707T0	Z519_09893T0	93.47	199	4	1	1	190	1	199	4.00E-120	341
3	A105_10821T0	Z519_12247T0	93.47	245	16	0	1	245	1	245	1.00E-162	453
1	A105_12286T0	Z519_04468T0	93.47	766	49	1	1	765	1	766	0	1344
1	A105_13339T0	Z519_09330T0	93.47	643	41	1	1	642	1	643	0	1159
5	A105_01303T0	Z519_08567T0	93.48	1165	76	0	1	1165	1	1165	0	2107
51	A105_03957T0	Z519_03256T0	93.48	414	27	0	1	414	1	414	0	780
2	A105_04857T0	Z519_02681T0	93.48	399	26	0	1	399	1	399	0	769
1	A105_09551T0	Z519_01045T0	93.48	138	9	0	1	138	1	138	2.00E-73	218
2	A105_10456T0	Z519_11333T0	93.48	736	48	0	1	736	291	1026	0	1432
4	A105_12235T0	Z519_04517T0	93.48	353	23	0	1	353	143	495	0	686
1	A105_13063T0	Z519_12127T0	93.48	1089	71	0	1	1089	1	1089	0	2019
4	A105_00508T0	Z519_00515T0	93.49	307	20	0	1	307	1	307	0	573
1	A105_04493T0	Z519_02320T0	93.49	430	28	0	1	430	1	430	0	782
51	A105_04503T0	Z519_02331T0	93.49	661	43	0	70	730	86	746	0	1297
7	A105_05300T0	Z519_08174T0	93.49	584	38	0	1	584	1	584	0	1126
1	A105_05609T0	Z519_03718T0	93.49	614	33	2	1	614	1	607	0	970
1	A105_07876T0	Z519_07706T0	93.49	584	38	0	1	584	1	584	0	1140
1	A105_10726T0	Z519_09914T0	93.49	507	33	0	1	507	1	507	0	897
4	A105_10857T0	Z519_11395T0	93.49	307	20	0	1	307	5	311	0	604
5	A105_12566T0	Z519_05480T0	93.49	215	14	0	1	215	1	215	7.00E-153	426
8	A105_13180T0	Z519_04342T0	93.49	691	45	0	1	691	1	691	0	1328
1	A105_13255T0	Z519_12161T0	93.49	261	17	0	1	261	1	261	0	501
7	A105_00681T0	Z519_00676T0	93.5	615	39	1	1	615	1	614	0	1211
16	A105_01560T0	Z519_01861T0	93.5	277	18	0	1	277	1	277	0	518
3	A105_03602T0	Z519_09730T0	93.5	615	39	1	160	773	70	684	0	1164
1	A105_03621T0	Z519_09748T0	93.5	200	12	1	1	200	1	199	1.00E-92	272
1	A105_04648T0	Z519_02475T0	93.5	200	13	0	1	200	1	200	1.00E-139	391
14	A105_07856T0	Z519_07685T0	93.5	323	21	0	1	323	1	323	0	629
1	A105_08014T0	Z519_07851T0	93.5	323	21	0	1	323	1	323	0	619
1	A105_10407T0	Z519_11284T0	93.5	1907	114	2	1	1906	1	1898	0	3553
1	A105_10819T0	Z519_12249T0	93.5	554	35	1	1	554	1	553	0	1013
8	A105_13062T0	Z519_12126T0	93.5	354	23	0	1	354	1	354	0	692
1	A105_02589T0	Z519_07119T0	93.51	462	29	1	1	461	1	462	0	854
1	A105_02618T0	Z519_07146T0	93.51	231	15	0	1	231	1	231	5.00E-121	347

7	A105_02953T0	Z519_12075T0	93.51	77	5	0	20	96	1	77	1.00E-44	143
1	A105_04223T0	Z519_03502T0	93.51	447	28	1	16	461	16	462	0	828
1	A105_05756T0	Z519_04981T0	93.51	185	12	0	1	185	9	193	4.00E-101	293
2	A105_06558T0	Z519_09107T0	93.51	154	10	0	1	154	33	186	7.00E-104	301
1	A105_06672T0	Z519_08997T0	93.51	2048	102	4	18	2040	18	2059	0	3172
4	A105_08177T0	Z519_09401T0	93.51	555	34	1	1	555	1	553	0	977
1	A105_10281T0	Z519_10947T0	93.51	77	5	0	1	77	104	180	2.00E-45	145
9	A105_13318T0	Z519_05015T0	93.51	185	11	1	1	185	1	184	1.00E-114	327
21	A105_00869T0	Z519_00818T0	93.52	386	25	0	34	419	1	386	0	741
4	A105_03688T0	Z519_03007T0	93.52	679	44	0	1	679	1	679	0	1103
1	A105_03783T0	Z519_03105T0	93.52	355	23	0	1	355	1	355	0	657
3	A105_10459T0	Z519_11336T0	93.52	756	44	3	1	752	1	755	0	1351
1	A105_10468T0	Z519_11345T0	93.52	432	28	0	1	432	476	907	0	807
1	A105_10906T0	Z519_11446T0	93.52	1189	77	0	1	1189	1	1189	0	2283
1	A105_04380T0	Z519_02207T0	93.53	556	17	2	1	556	1	537	0	1025
89	A105_05016T0	Z519_12219T0	93.53	340	20	1	1	340	1	338	0	635
12	A105_08653T0	Z519_04003T0	93.53	587	38	0	1	587	23	609	0	1145
6	A105_08854T0	Z519_03799T0	93.53	1700	106	2	1	1696	1	1700	0	3202
40	A105_10015T0	Z519_04155T0	93.53	541	35	0	1	541	1	541	0	1050
1	A105_11806T0	Z519_02878T0	93.53	309	20	0	1	309	1	309	0	553
154	A105_00417T0	Z519_00418T0	93.54	449	29	0	78	526	1	449	0	862
40	A105_01880T0	Z519_01584T0	93.54	1192	77	0	1	1192	1	1192	0	2265
20	A105_02216T0	Z519_11759T0	93.54	511	33	0	1	511	1	511	0	977
1	A105_04395T0	Z519_02226T0	93.54	604	35	1	1	600	1	604	0	1021
1	A105_05398T0	Z519_08272T0	93.54	418	27	0	1	418	1	418	0	766
4	A105_08958T0	Z519_05061T0	93.54	325	21	0	32	356	1	325	0	637
3	A105_10072T0	Z519_04099T0	93.54	387	25	0	345	731	60	446	0	733
3	A105_12570T0	Z519_05473T0	93.54	263	17	0	1	263	1	263	0	506
85	A105_13179T0	Z519_04343T0	93.54	573	17	1	1	573	1	553	0	1091
37	A105_01707T0	Z519_01716T0	93.55	155	10	0	1	155	282	436	1.00E-97	296
4	A105_02308T0	Z519_11668T0	93.55	605	38	1	1	605	1	604	0	1095
56	A105_07220T0	Z519_05798T0	93.55	310	20	0	1	310	1	310	0	595
53	A105_07284T0	Z519_05863T0	93.55	372	22	1	1	372	1	370	0	684
1	A105_07940T0	Z519_07775T0	93.55	341	22	0	1	341	1	341	0	660
7	A105_08346T0	Z519_09560T0	93.55	217	14	0	1	217	74	290	2.00E-148	418

1	A105_10046T0	Z519_04120T0	93.55	124	8	0	1	124	1	124	7.00E-80	235
1	A105_12884T0	Z519_07487T0	93.55	853	55	0	1	853	87	939	0	1603
20	A105_01030T0	Z519_00953T0	93.56	419	27	0	1	419	1	419	0	816
5	A105_01258T0	Z519_08524T0	93.56	264	17	0	1	264	1	264	3.00E-180	508
1	A105_01380T0	Z519_11889T0	93.56	233	14	1	1	233	1	232	9.00E-161	447
1	A105_02346T0	Z519_11625T0	93.56	450	29	0	36	485	195	644	0	743
55	A105_05098T0	Z519_07988T0	93.56	481	31	0	1	481	1	481	0	904
4	A105_05184T0	Z519_08073T0	93.56	404	26	0	1	404	1	404	0	788
9	A105_05920T0	Z519_04814T0	93.56	1072	65	1	1	1068	1	1072	0	2025
1	A105_06231T0	Z519_10780T0	93.56	264	11	1	1	258	1	264	0	501
1	A105_06731T0	Z519_06778T0	93.56	357	21	1	13	367	13	369	0	673
1	A105_09708T0	Z519_10499T0	93.56	497	32	0	1	497	1	497	0	909
1	A105_11206T0	Z519_08877T0	93.56	404	26	0	1	404	1	404	0	776
1	A105_11593T0	Z519_08702T0	93.56	202	13	0	1	202	1	202	1.00E-95	280
9	A105_12043T0	Z519_05684T0	93.56	295	19	0	1	295	1	295	0	560
20	A105_00867T0	Z519_00816T0	93.57	964	52	2	1	964	1	954	0	1852
1	A105_01296T0	Z519_08561T0	93.57	498	32	0	1	498	1	498	0	902
3	A105_01364T0	Z519_11904T0	93.57	140	9	0	1	140	1	140	1.00E-96	277
3	A105_04880T0	Z519_02704T0	93.57	498	32	0	1	498	227	724	0	981
9	A105_06927T0	Z519_06573T0	93.57	513	33	0	1	513	1	513	0	987
1	A105_07222T0	Z519_05799T0	93.57	638	35	2	1	632	1	638	0	986
7	A105_07692T0	Z519_07515T0	93.57	1027	63	2	1	1027	1	1024	0	1925
10	A105_10351T0	Z519_11022T0	93.57	280	18	0	1	280	132	411	0	555
10	A105_12536T0	Z519_02867T0	93.57	575	37	0	11	585	6	580	0	1065
1	A105_00729T0	Z519_00721T0	93.58	514	32	1	1	513	38	551	0	963
1	A105_02116T0	Z519_01364T0	93.58	187	12	0	1	187	1	187	2.00E-87	258
93	A105_02535T0	Z519_07065T0	93.58	530	31	1	1	530	10	536	0	1009
1	A105_03516T0	Z519_09640T0	93.58	1013	60	2	1	1012	1	1009	0	1952
8	A105_04096T0	Z519_03369T0	93.58	374	24	0	1	374	1	374	0	720
1	A105_05347T0	Z519_08220T0	93.58	1013	65	0	1	1013	13	1025	0	1846
1	A105_07583T0	Z519_06146T0	93.58	639	38	1	1	639	1	636	0	1090
128	A105_09386T0	Z519_01180T0	93.58	530	18	1	1	530	1	514	0	1000
2	A105_11215T0	Z519_08866T0	93.58	405	26	0	1	405	1	405	0	781
1	A105_11397T0	Z519_02062T0	93.58	218	14	0	1	218	1	218	5.00E-152	424
6	A105_11563T0	Z519_11533T0	93.58	467	3	2	1	467	1	440	0	827

18	A105_00146T0	Z519_00147T0	93.59	156	10	0	95	250	166	321	3.00E-103	310
1	A105_03956T0	Z519_03255T0	93.59	515	33	0	11	525	16	530	0	907
34	A105_04705T0	Z519_02535T0	93.59	1762	113	0	1	1762	1	1762	0	3326
6	A105_06401T0	Z519_10640T0	93.59	343	22	0	1	343	27	369	0	630
151	A105_11379T0	Z519_02078T0	93.59	546	34	1	1	546	1	545	0	1045
161	A105_12911T0	Z519_11049T0	93.59	499	32	0	1	499	1	499	0	979
1	A105_00671T0	Z519_00666T0	93.6	125	8	0	1	125	1	125	9.00E-72	214
1	A105_03534T0	Z519_09656T0	93.6	125	8	0	1	125	1	125	6.00E-78	228
1	A105_05042T0	Z519_07933T0	93.6	1266	79	1	1	1266	1	1264	0	2442
5	A105_05667T0	Z519_11182T0	93.6	547	18	1	1	547	1	530	0	1011
4	A105_05873T0	Z519_04861T0	93.6	250	16	0	1	250	1	250	4.00E-175	486
3	A105_09208T0	Z519_05321T0	93.6	125	8	0	1	125	1	125	2.00E-83	244
106	A105_10812T0	Z519_12256T0	93.6	500	32	0	1	500	6	505	0	977
2	A105_10820T0	Z519_12248T0	93.6	1171	46	1	1	1142	1	1171	0	2119
74	A105_12633T0	Z519_05404T0	93.6	625	36	2	1	625	60	680	0	1148
23	A105_13037T0	Z519_04455T0	93.6	344	22	0	1	344	1	344	0	671
1	A105_02660T0	Z519_07192T0	93.61	548	33	1	1	548	1	546	0	930
2	A105_03206T0	Z519_10056T0	93.61	266	17	0	1	266	1	266	9.00E-172	478
1	A105_03692T0	Z519_03011T0	93.61	266	17	0	1	266	1	266	4.00E-179	497
1	A105_04895T0	Z519_02719T0	93.61	485	31	0	1	485	1	485	0	923
3	A105_05018T0	Z519_07906T0	93.61	642	41	0	1	642	1	642	0	1256
1	A105_05109T0	Z519_07999T0	93.61	360	23	0	23	382	4	363	0	654
59	A105_11057T0	Z519_06858T0	93.61	532	34	0	23	554	39	570	0	1029
1	A105_12261T0	Z519_04492T0	93.61	266	11	1	1	266	1	260	8.00E-151	425
11	A105_00693T0	Z519_00687T0	93.62	627	40	0	6	632	3	629	0	1193
1	A105_01657T0	Z519_01759T0	93.62	392	25	0	1	392	1	392	0	758
1	A105_03107T0	Z519_09960T0	93.62	596	38	0	1	596	1	596	0	1147
1	A105_04829T0	Z519_02654T0	93.62	909	58	0	1	909	1	909	0	1699
1	A105_05862T0	Z519_04872T0	93.62	235	14	1	1	235	1	234	4.00E-158	441
4	A105_07011T0	Z519_06490T0	93.62	47	3	0	1	47	1	47	2.00E-22	89.4
1	A105_07925T0	Z519_07763T0	93.62	329	21	0	1	329	1	329	0	591
23	A105_08609T0	Z519_04040T0	93.62	345	22	0	1	345	1	345	0	669
58	A105_11962T0	Z519_05770T0	93.62	329	21	0	1	329	1	329	0	618
1	A105_12023T0	Z519_05706T0	93.62	188	12	0	10	197	2	189	1.00E-129	365
2	A105_03732T0	Z519_03052T0	93.63	518	33	0	1	518	1	518	0	949

3	A105_04103T0	Z519_03376T0	93.63	1068	68	0	1	1068	1	1068	0	2055
2	A105_04953T0	Z519_02777T0	93.63	204	13	0	1	204	1	204	4.00E-140	393
1	A105_05870T0	Z519_04864T0	93.63	424	27	0	1	424	1	424	0	815
1	A105_08443T0	Z519_05609T0	93.63	565	36	0	11	575	81	645	0	1087
2	A105_09029T0	Z519_05134T0	93.63	251	16	0	1	251	1	251	2.00E-173	481
5	A105_09177T0	Z519_05292T0	93.63	722	46	0	1	722	97	818	0	1389
2	A105_09291T0	Z519_01274T0	93.63	675	43	0	1	675	1	675	0	1243
1	A105_11872T0	Z519_01976T0	93.63	942	44	2	1	926	1	942	0	1800
1	A105_12498T0	Z519_02832T0	93.63	753	48	0	1	753	1	753	0	1353
2	A105_00140T0	Z519_00141T0	93.64	346	18	1	1	342	1	346	0	663
4	A105_01153T0	Z519_08419T0	93.64	440	27	1	1	440	1	439	0	847
2	A105_02101T0	Z519_01379T0	93.64	173	11	0	9	181	1	173	6.00E-116	331
3	A105_02552T0	Z519_07083T0	93.64	535	34	0	1	535	1	535	0	991
34	A105_03869T0	Z519_03187T0	93.64	629	40	0	1	629	94	722	0	1182
2	A105_04182T0	Z519_03461T0	93.64	220	14	0	1	220	57	276	2.00E-151	425
11	A105_04505T0	Z519_02333T0	93.64	346	4	1	1	346	1	328	0	515
6	A105_07275T0	Z519_05853T0	93.64	440	28	0	1	440	1	440	0	816
20	A105_08188T0	Z519_09412T0	93.64	865	55	0	1	865	1	865	0	1677
1	A105_08502T0	Z519_05550T0	93.64	535	33	1	1	534	1	535	0	1019
3	A105_09575T0	Z519_01021T0	93.64	330	20	1	1	330	1	329	0	589
1	A105_11445T0	Z519_08724T0	93.64	236	15	0	1	236	1	236	2.00E-154	432
1	A105_12266T0	Z519_04488T0	93.64	346	22	0	1	346	1	346	0	654
60	A105_12916T0	Z519_11055T0	93.64	566	36	0	1	566	1	566	0	1102
3	A105_00744T0	Z519_00737T0	93.65	378	24	0	28	405	3	380	0	699
10	A105_01034T0	Z519_00957T0	93.65	441	25	1	1	441	1	438	0	829
28	A105_03068T0	Z519_11970T0	93.65	299	2	1	1	282	39	337	0	572
10	A105_06617T0	Z519_09048T0	93.65	929	59	0	1	929	13	941	0	1755
1	A105_06649T0	Z519_09018T0	93.65	567	36	0	1	567	1	567	0	1045
9	A105_07198T0	Z519_06302T0	93.65	551	35	0	1	551	1	551	0	1065
45	A105_12941T0	Z519_11080T0	93.65	630	17	1	1	607	1	630	0	1197
8	A105_01116T0	Z519_08390T0	93.66	473	30	0	1	473	167	639	0	916
5	A105_07410T0	Z519_05982T0	93.66	505	32	0	1	505	1157	1661	0	998
4	A105_08341T0	Z519_09555T0	93.66	1231	76	2	1	1231	1	1229	0	2335
6	A105_08411T0	Z519_05639T0	93.66	552	34	1	1	552	1	551	0	1063
1	A105_08720T0	Z519_03938T0	93.66	1341	81	2	1	1341	1	1337	0	2598

16	A105_09372T0	Z519_01197T0	93.66	284	18	0	1	284	1	284	0	546
2	A105_09384T0	Z519_01182T0	93.66	331	21	0	1	331	1	331	0	634
1	A105_09710T0	Z519_10497T0	93.66	552	35	0	1	552	1	552	0	996
15	A105_10929T0	Z519_11468T0	93.66	347	22	0	1	347	46	392	0	674
12	A105_12029T0	Z519_05700T0	93.66	505	21	1	1	505	1	494	0	954
1	A105_00750T0	Z519_00743T0	93.67	332	21	0	1	332	1	332	0	595
13	A105_01442T0	Z519_11826T0	93.67	837	52	1	1	836	1	837	0	1560
4	A105_02363T0	Z519_11608T0	93.67	458	29	0	1	458	1	458	0	890
1	A105_03138T0	Z519_09992T0	93.67	1264	72	1	1	1256	1	1264	0	2301
1	A105_04665T0	Z519_02494T0	93.67	664	42	0	1	664	1	664	0	1256
1	A105_06604T0	Z519_09060T0	93.67	221	9	1	1	221	1	216	2.00E-112	325
1	A105_07163T0	Z519_06338T0	93.67	221	14	0	1	221	1	221	6.00E-148	414
7	A105_07197T0	Z519_06303T0	93.67	395	25	0	1	395	1	395	0	766
7	A105_08375T0	Z519_05669T0	93.67	300	19	0	1	300	1	300	0	593
5	A105_10594T0	Z519_12559T0	93.67	237	15	0	1	237	1	237	1.00E-167	465
1	A105_11039T0	Z519_06839T0	93.67	79	5	0	1	79	1	79	7.00E-48	149
1	A105_11343T0	Z519_02116T0	93.67	458	29	0	1	458	1	458	0	775
17	A105_12133T0	Z519_09228T0	93.67	411	21	1	1	411	197	602	0	789
32	A105_12846T0	Z519_07451T0	93.67	237	12	1	91	324	11	247	2.00E-164	462
1	A105_12853T0	Z519_07458T0	93.67	79	5	0	1	79	26	104	3.00E-48	150
61	A105_01576T0	Z519_01844T0	93.68	285	16	1	1	285	1	283	0	549
55	A105_03469T0	Z519_09594T0	93.68	1345	82	1	30	1374	1	1342	0	2586
10	A105_04250T0	Z519_03528T0	93.68	585	37	0	1	585	1	585	0	1132
1	A105_04754T0	Z519_02582T0	93.68	585	36	1	1	584	1	585	0	1051
1	A105_05023T0	Z519_07910T0	93.68	427	27	0	6	432	48	474	0	821
14	A105_05675T0	Z519_11174T0	93.68	506	26	1	1	506	8	507	0	978
29	A105_08667T0	Z519_03991T0	93.68	1187	41	2	1	1155	1	1185	0	2030
1	A105_09257T0	Z519_05365T0	93.68	285	18	0	1	285	1	285	4.00E-163	457
1	A105_12748T0	Z519_10807T0	93.68	380	24	0	1	380	1	380	0	738
1	A105_12755T0	Z519_10813T0	93.68	902	57	0	1	902	1	902	0	1699
36	A105_12925T0	Z519_11063T0	93.68	950	60	0	1	950	1	950	0	1842
3	A105_13192T0	Z519_12477T0	93.68	522	29	2	1	518	1	522	0	888
1	A105_03616T0	Z519_09744T0	93.69	206	13	0	1	206	1	206	7.00E-141	395
1	A105_04215T0	Z519_03495T0	93.69	761	46	1	1	759	74	834	0	1350
1	A105_04566T0	Z519_02393T0	93.69	206	13	0	1	206	1	206	4.00E-134	378

6	A105_05802T0	Z519_04931T0	93.69	206	13	0	1	206	1	206	2.00E-142	399
1	A105_06934T0	Z519_06565T0	93.69	1552	98	0	1	1552	1	1552	0	2604
39	A105_07057T0	Z519_06443T0	93.69	586	37	0	1	586	1	586	0	1128
4	A105_10155T0	Z519_12698T0	93.69	586	37	0	1	586	1	586	0	1157
99	A105_00005T0	Z519_00005T0	93.7	587	37	0	1	587	1	587	0	1127
1	A105_00266T0	Z519_00275T0	93.7	492	20	2	1	490	1	483	0	894
5	A105_00461T0	Z519_00468T0	93.7	683	43	0	1	683	1	683	0	1251
6	A105_00616T0	Z519_00626T0	93.7	762	32	2	1	762	1	746	0	1155
1	A105_09139T0	Z519_05249T0	93.7	603	38	0	1	603	1	603	0	1128
2	A105_05791T0	Z519_04942T0	93.71	477	30	0	5	481	27	503	0	894
1	A105_07645T0	Z519_06209T0	93.71	334	19	1	1	332	1	334	0	542
2	A105_09046T0	Z519_05158T0	93.71	509	31	1	1	509	1	508	0	980
10	A105_09214T0	Z519_05326T0	93.71	286	18	0	1	286	1	286	0	530
2	A105_10269T0	Z519_10936T0	93.71	159	10	0	1	159	1	159	2.00E-106	303
1	A105_10639T0	Z519_09827T0	93.71	1462	88	3	1	1462	26	1483	0	2414
2	A105_11625T0	Z519_08670T0	93.71	143	9	0	1	143	1	143	9.00E-97	278
2	A105_12002T0	Z519_05729T0	93.71	302	16	2	1	299	1	302	5.00E-179	499
99	A105_12707T0	Z519_09800T0	93.71	509	32	0	1	509	1	509	0	1004
133	A105_13010T0	Z519_04425T0	93.71	477	30	0	1	477	31	507	0	892
1	A105_01400T0	Z519_11867T0	93.72	669	42	0	1	669	1	669	0	1311
5	A105_01790T0	Z519_01674T0	93.72	207	13	0	1	207	1	207	3.00E-145	406
1	A105_02884T0	Z519_07415T0	93.72	717	44	1	1	716	47	763	0	1388
6	A105_04482T0	Z519_02311T0	93.72	430	27	0	1	430	1	430	0	837
2	A105_12392T0	Z519_06282T0	93.72	430	27	0	1	430	1	430	0	784
135	A105_00967T0	Z519_00904T0	93.73	255	10	1	1	249	1	255	1.00E-175	487
3	A105_03515T0	Z519_09639T0	93.73	271	17	0	44	314	4	274	0	507
25	A105_04267T0	Z519_03544T0	93.73	542	34	0	1	542	1	542	0	1048
7	A105_05136T0	Z519_08027T0	93.73	351	22	0	1	351	10	360	0	666
50	A105_05648T0	Z519_11201T0	93.73	303	19	0	56	358	1	303	0	543
3	A105_06052T0	Z519_04687T0	93.73	1340	83	1	1	1340	1	1339	0	2532
2	A105_06242T0	Z519_10769T0	93.73	319	20	0	1	319	1	319	0	569
3	A105_07634T0	Z519_06196T0	93.73	415	26	0	1	415	1	415	0	808
1	A105_11436T0	Z519_08716T0	93.73	383	24	0	1	383	647	1029	0	723
7	A105_12833T0	Z519_07436T0	93.73	1021	56	1	1	1021	1	1013	0	1760
1	A105_00953T0	Z519_00887T0	93.74	543	32	2	1	541	1	543	0	964

2	A105_04157T0	Z519_03437T0	93.74	463	29	0	1	463	1	463	0	830
4	A105_05751T0	Z519_04986T0	93.74	479	30	0	1	479	1	479	0	956
19	A105_06378T0	Z519_10662T0	93.74	575	36	0	1	575	1	575	0	1121
1	A105_06526T0	Z519_09139T0	93.74	1167	72	1	1	1167	1	1166	0	2206
74	A105_00509T0	Z519_00517T0	93.75	320	20	0	1	320	1	320	0	625
11	A105_01556T0	Z519_01865T0	93.75	752	47	0	1	752	9	760	0	1441
10	A105_02003T0	Z519_01457T0	93.75	608	38	0	1	608	3	610	0	1194
160	A105_03245T0	Z519_10094T0	93.75	272	17	0	1	272	1	272	0	522
1	A105_03637T0	Z519_09766T0	93.75	912	53	2	1	909	1	911	0	1629
1	A105_04441T0	Z519_02273T0	93.75	80	5	0	1	80	1	80	5.00E-48	149
1	A105_04921T0	Z519_02747T0	93.75	656	38	2	1	656	1	653	0	1160
165	A105_05014T0	Z519_12217T0	93.75	464	29	0	45	508	1	464	0	917
2	A105_08805T0	Z519_03849T0	93.75	128	8	0	116	243	1	128	2.00E-80	239
2	A105_11051T0	Z519_06852T0	93.75	256	16	0	1	256	1	256	1.00E-174	484
2	A105_11494T0	Z519_08772T0	93.75	128	8	0	1	128	1	128	5.00E-81	236
15	A105_12142T0	Z519_09255T0	93.75	128	8	0	1	128	1	128	2.00E-83	249
1	A105_12751T0	Z519_10809T0	93.75	160	10	0	1	160	1	160	3.00E-92	268
1	A105_13004T0	Z519_04418T0	93.75	224	14	0	4	227	66	289	3.00E-154	433
22	A105_04552T0	Z519_02380T0	93.76	417	21	1	1	412	1	417	0	800
3	A105_04617T0	Z519_02444T0	93.76	625	39	0	1	625	1	625	0	1217
1	A105_04931T0	Z519_02755T0	93.76	673	42	0	1	673	1	673	0	1259
1	A105_06494T0	Z519_09169T0	93.76	689	43	0	1	689	1	689	0	1291
161	A105_08347T0	Z519_09561T0	93.76	513	18	1	1	499	1	513	0	923
41	A105_10515T0	Z519_12628T0	93.76	497	7	1	1	473	1	497	0	942
2	A105_11069T0	Z519_06869T0	93.76	449	28	0	1	449	1	449	0	859
83	A105_00722T0	Z519_00714T0	93.77	803	50	0	1	803	1	803	0	1529
1	A105_00771T0	Z519_00765T0	93.77	273	17	0	1	273	1	273	8.00E-180	499
4	A105_02447T0	Z519_06979T0	93.77	674	42	0	1	674	1	674	0	1322
1	A105_02958T0	Z519_12070T0	93.77	289	18	0	1	289	1	289	0	522
1	A105_02978T0	Z519_12051T0	93.77	658	34	2	1	652	1	657	0	1009
7	A105_05133T0	Z519_08023T0	93.77	594	37	0	99	692	46	639	0	1095
2	A105_06547T0	Z519_09118T0	93.77	289	18	0	1	289	161	449	0	535
173	A105_07860T0	Z519_07689T0	93.77	867	54	0	1	867	1	867	0	1618
1	A105_08009T0	Z519_07845T0	93.77	754	47	0	1	754	1	754	0	1451
100	A105_08590T0	Z519_04055T0	93.77	305	19	0	1	305	1	305	0	592

3	A105_09865T0	Z519_10352T0	93.77	626	33	1	1	626	1	620	0	1152
2	A105_10110T0	Z519_04259T0	93.77	546	32	2	1	546	1	544	0	1047
1	A105_10923T0	Z519_11462T0	93.77	658	25	1	1	658	1	642	0	1273
2	A105_10970T0	Z519_11504T0	93.77	273	17	0	1	273	1	273	0	503
16	A105_11637T0	Z519_08661T0	93.77	690	43	0	1	690	1	690	0	1354
4	A105_11803T0	Z519_02881T0	93.77	1413	88	0	1	1413	1	1413	0	2721
6	A105_13474T0	Z519_05833T0	93.77	273	17	0	1	273	1	273	0	536
1	A105_01189T0	Z519_08457T0	93.78	241	15	0	1	241	1	241	3.00E-170	472
4	A105_01347T0	Z519_11924T0	93.78	450	27	1	1	450	1	449	0	811
2	A105_09798T0	Z519_10422T0	93.78	241	15	0	1	241	1	241	1.00E-170	473
7	A105_12597T0	Z519_05447T0	93.78	434	27	0	1	434	1	434	0	823
2	A105_12954T0	Z519_11092T0	93.78	241	15	0	1	241	1	241	1.00E-170	473
1	A105_00894T0	Z519_00843T0	93.79	322	20	0	1	322	1	322	0	575
2	A105_02162T0	Z519_01319T0	93.79	499	29	2	1	498	1	498	0	939
1	A105_03615T0	Z519_09743T0	93.79	419	24	1	1	417	1	419	0	800
1	A105_04634T0	Z519_02462T0	93.79	741	36	1	1	741	1	731	0	1336
1	A105_04692T0	Z519_02521T0	93.79	435	9	1	1	417	1	435	0	834
2	A105_06511T0	Z519_09154T0	93.79	145	9	0	1	145	5	149	2.00E-97	280
1	A105_07989T0	Z519_07825T0	93.79	161	10	0	1	161	1	161	9.00E-108	307
16	A105_08079T0	Z519_04321T0	93.79	564	35	0	1	564	1	564	0	1020
146	A105_08479T0	Z519_05573T0	93.79	290	9	1	1	290	1	281	0	520
1	A105_08889T0	Z519_03764T0	93.79	564	35	0	1	564	1	564	0	1098
15	A105_10621T0	Z519_11096T0	93.79	322	20	0	1	322	1	322	0	614
28	A105_10838T0	Z519_12230T0	93.79	145	9	0	1	145	1	145	7.00E-94	280
5	A105_01619T0	Z519_01798T0	93.8	790	47	2	40	829	10	797	0	1469
2	A105_02304T0	Z519_11672T0	93.8	935	53	3	1	934	1	931	0	1762
6	A105_02749T0	Z519_07282T0	93.8	548	31	3	1	547	1	546	0	1001
5	A105_03647T0	Z519_09776T0	93.8	258	16	0	1	258	1	258	6.00E-177	491
15	A105_04792T0	Z519_02619T0	93.8	693	43	0	1	693	1	693	0	1325
8	A105_08153T0	Z519_09377T0	93.8	387	24	0	1	387	1	387	0	731
96	A105_09431T0	Z519_01155T0	93.8	500	31	0	1	500	1	500	0	963
20	A105_12607T0	Z519_05435T0	93.8	693	27	2	1	685	1	685	0	1342
47	A105_00594T0	Z519_00604T0	93.81	808	48	1	1	806	15	822	0	1580
2	A105_01646T0	Z519_01770T0	93.81	759	47	0	1	759	1	759	0	1410
1	A105_03390T0	Z519_10211T0	93.81	97	6	0	1	97	1	97	3.00E-49	153

1	A105_04442T0	Z519_02274T0	93.81	339	21	0	1	339	1	339	0	657
13	A105_04811T0	Z519_02636T0	93.81	678	42	0	1	678	199	876	0	1326
2	A105_06942T0	Z519_06556T0	93.81	210	13	0	1	210	1	210	7.00E-137	385
1	A105_07133T0	Z519_06368T0	93.81	501	31	0	1	501	1	501	0	864
30	A105_07159T0	Z519_06342T0	93.81	388	15	2	1	379	1	388	0	708
3	A105_08914T0	Z519_03739T0	93.81	307	19	0	1	307	1	307	0	587
4	A105_11266T0	Z519_08811T0	93.81	307	19	0	1	307	36	342	0	604
1	A105_12875T0	Z519_07478T0	93.81	404	8	1	1	404	1	387	0	781
1	A105_01956T0	Z519_01503T0	93.82	421	26	0	1	421	1	421	0	806
1	A105_05429T0	Z519_08304T0	93.82	1035	61	3	11	1043	11	1044	0	1775
16	A105_06013T0	Z519_04723T0	93.82	453	10	1	1	435	1	453	0	869
153	A105_06504T0	Z519_09161T0	93.82	502	31	0	1	502	1	502	0	978
4	A105_06519T0	Z519_09143T0	93.82	372	23	0	1	372	65	436	0	730
7	A105_12764T0	Z519_10823T0	93.82	842	46	1	1	842	1	836	0	1595
1	A105_12886T0	Z519_07489T0	93.82	566	35	0	1	566	1	566	0	1074
4	A105_06462T0	Z519_09198T0	93.83	227	14	0	1	227	1	227	6.00E-159	442
6	A105_06596T0	Z519_09068T0	93.83	664	21	1	1	664	1	644	0	1269
9	A105_09524T0	Z519_01063T0	93.83	470	9	2	11	465	11	475	0	916
3	A105_11239T0	Z519_08838T0	93.83	1960	108	7	1	1959	1	1948	0	3389
2	A105_12772T0	Z519_10831T0	93.83	227	14	0	1	227	1	227	2.00E-157	442
1	A105_02319T0	Z519_11656T0	93.84	503	27	1	1	503	1	499	0	847
1	A105_02891T0	Z519_07422T0	93.84	422	26	0	1	422	1	422	0	698
193	A105_04877T0	Z519_02701T0	93.84	276	15	1	1	276	1	274	0	518
3	A105_07151T0	Z519_06350T0	93.84	276	17	0	1	276	1	276	0	504
3	A105_08343T0	Z519_09557T0	93.84	211	13	0	1	211	1	211	4.00E-148	414
1	A105_08470T0	Z519_05582T0	93.84	568	35	0	1	568	1	568	0	1063
131	A105_09140T0	Z519_05250T0	93.84	536	33	0	1	536	20	555	0	1018
1	A105_09364T0	Z519_01204T0	93.84	211	13	0	1	211	1	211	5.00E-148	413
1	A105_11442T0	Z519_08721T0	93.84	276	17	0	1	276	1	276	0	536
2	A105_11831T0	Z519_01937T0	93.84	1007	62	0	1	1007	1	1007	0	1971
55	A105_12207T0	Z519_04544T0	93.84	649	40	0	54	702	6	654	0	1237
33	A105_12369T0	Z519_12454T0	93.84	357	22	0	1	357	1	357	0	671
5	A105_03289T0	Z519_10137T0	93.85	455	27	1	1	455	1	454	0	611
111	A105_03714T0	Z519_03033T0	93.85	488	20	1	1	478	1	488	0	917
1	A105_04098T0	Z519_03371T0	93.85	715	44	0	1	715	1	715	0	1375

159	A105_05574T0	Z519_03687T0	93.85	520	16	1	1	504	1	520	0	969
1	A105_05874T0	Z519_04860T0	93.85	195	12	0	1	195	1	195	3.00E-89	263
35	A105_06064T0	Z519_04676T0	93.85	358	22	0	1	358	1	358	0	701
2	A105_06579T0	Z519_09086T0	93.85	358	22	0	1	358	1	358	0	696
1	A105_07652T0	Z519_06217T0	93.85	309	19	0	1	309	1	309	0	582
6	A105_07724T0	Z519_07539T0	93.85	325	18	2	1	325	490	812	0	626
1	A105_08920T0	Z519_03732T0	93.85	179	11	0	1	179	1	179	1.00E-111	318
77	A105_10437T0	Z519_11313T0	93.85	309	19	0	1	309	1	309	0	606
1	A105_13123T0	Z519_11249T0	93.85	179	11	0	47	225	59	237	2.00E-119	343
1	A105_02469T0	Z519_07001T0	93.86	619	38	0	1	619	1	619	0	1196
1	A105_04127T0	Z519_03406T0	93.86	228	13	1	1	227	1	228	2.00E-150	421
8	A105_05972T0	Z519_04763T0	93.86	342	21	0	1	342	1	342	0	663
1	A105_07499T0	Z519_06065T0	93.86	277	17	0	18	294	11	287	0	513
1	A105_07621T0	Z519_06184T0	93.86	1092	48	1	1	1073	1	1092	0	2078
146	A105_09932T0	Z519_04215T0	93.86	521	32	0	1	521	1	521	0	1021
1	A105_03033T0	Z519_12004T0	93.87	163	10	0	1	163	1	163	1.00E-90	264
4	A105_06720T0	Z519_06789T0	93.87	212	12	1	1	212	72	282	9.00E-141	398
1	A105_08673T0	Z519_03986T0	93.87	212	13	0	1	212	1	212	7.00E-148	413
1	A105_09301T0	Z519_01265T0	93.87	212	13	0	1	212	1	212	2.00E-141	397
1	A105_10877T0	Z519_11416T0	93.87	751	46	0	62	812	1	751	0	1391
1	A105_11783T0	Z519_02898T0	93.87	424	26	0	1	424	1	424	0	805
9	A105_12718T0	Z519_09795T0	93.87	702	43	0	1	702	1	702	0	1325
5	A105_00591T0	Z519_00601T0	93.88	327	11	1	1	318	7	333	0	629
31	A105_00998T0	Z519_00924T0	93.88	343	21	0	1	343	1	343	0	679
2	A105_02077T0	Z519_01401T0	93.88	392	20	2	1	392	1	388	0	671
1	A105_04937T0	Z519_02761T0	93.88	1357	79	2	1	1355	1	1355	0	2588
1	A105_05052T0	Z519_07943T0	93.88	719	44	0	1	719	1	719	0	1400
18	A105_05152T0	Z519_08043T0	93.88	490	30	0	16	505	26	515	0	936
3	A105_05707T0	Z519_11143T0	93.88	278	17	0	20	297	22	299	0	541
4	A105_05979T0	Z519_04757T0	93.88	245	11	1	1	241	1	245	6.00E-163	454
1	A105_09787T0	Z519_10433T0	93.88	376	23	0	5	380	1	376	0	730
1	A105_11822T0	Z519_01929T0	93.88	932	57	0	1	932	1	932	0	1768
1	A105_12089T0	Z519_12349T0	93.88	98	6	0	1	98	1	98	5.00E-59	180
1	A105_12289T0	Z519_04465T0	93.88	196	12	0	1	196	1	196	1.00E-121	345
1	A105_01896T0	Z519_01570T0	93.89	589	32	3	1	588	1	586	0	1028

1	A105_03556T0	Z519_09678T0	93.89	180	11	0	1	180	1	180	2.00E-120	341
1	A105_04567T0	Z519_02394T0	93.89	131	8	0	1	131	1	131	2.00E-80	235
2	A105_05174T0	Z519_08062T0	93.89	311	19	0	1	311	1	311	0	589
3	A105_05435T0	Z519_08312T0	93.89	311	19	0	1	311	1	311	0	571
69	A105_06570T0	Z519_09095T0	93.89	540	19	1	1	540	1	526	0	1005
1	A105_06628T0	Z519_09037T0	93.89	1489	88	1	1	1489	1	1486	0	2623
1	A105_07333T0	Z519_05905T0	93.89	867	51	2	1	865	1	867	0	1632
4	A105_08531T0	Z519_05521T0	93.89	180	11	0	1	180	1	180	3.00E-127	358
1	A105_11293T0	Z519_02147T0	93.89	311	19	0	1	311	169	479	0	553
1	A105_11299T0	Z519_02141T0	93.89	262	16	0	1	262	1	262	9.00E-176	488
2	A105_12496T0	Z519_02830T0	93.89	229	14	0	1	229	1	229	3.00E-160	446
5	A105_12509T0	Z519_02842T0	93.89	262	16	0	1	262	1	262	2.00E-178	495
22	A105_00373T0	Z519_00376T0	93.9	672	41	0	1	672	1	672	0	1288
71	A105_04737T0	Z519_02566T0	93.9	295	18	0	1	295	15	309	0	575
81	A105_05947T0	Z519_04787T0	93.9	721	27	2	10	730	1	704	0	1362
5	A105_06556T0	Z519_09109T0	93.9	541	33	0	1	541	1	541	0	1032
23	A105_00264T0	Z519_00273T0	93.91	591	29	1	1	591	1	584	0	1145
15	A105_01947T0	Z519_01513T0	93.91	197	10	1	1	195	1	197	1.00E-128	363
1	A105_02776T0	Z519_07308T0	93.91	197	12	0	1	197	1	197	3.00E-139	390
2	A105_04922T0	Z519_02748T0	93.91	690	42	0	1	690	1	690	0	1358
1	A105_07406T0	Z519_05978T0	93.91	427	25	1	1	427	1	426	0	717
1	A105_09126T0	Z519_05237T0	93.91	394	21	1	1	391	1	394	0	630
5	A105_00397T0	Z519_00399T0	93.92	789	41	1	1	789	1	782	0	1253
1	A105_01247T0	Z519_08513T0	93.92	1152	65	1	1	1152	130	1276	0	2083
5	A105_03436T0	Z519_10258T0	93.92	362	13	1	1	353	1	362	0	706
9	A105_03723T0	Z519_03043T0	93.92	395	14	1	1	395	1	385	0	766
1	A105_03972T0	Z519_03271T0	93.92	263	16	0	1	263	299	561	1.00E-178	507
1	A105_05072T0	Z519_07962T0	93.92	839	47	1	1	835	1	839	0	1463
6	A105_06207T0	Z519_10792T0	93.92	921	31	4	1	902	1	915	0	1593
2	A105_07550T0	Z519_06113T0	93.92	477	29	0	1	477	1	477	0	924
1	A105_08071T0	Z519_04329T0	93.92	263	16	0	1	263	1	263	0	505
2	A105_08675T0	Z519_03984T0	93.92	543	33	0	1	543	1	543	0	1058
36	A105_11013T0	Z519_06808T0	93.92	855	52	0	1	855	1	855	0	1643
1	A105_11105T0	Z519_06906T0	93.92	1826	110	1	1	1826	1	1825	0	3397
2	A105_11195T0	Z519_08887T0	93.92	444	27	0	1	444	1	444	0	771

29	A105_00882T0	Z519_00831T0	93.93	610	37	0	1	610	1	610	0	1207
1	A105_01003T0	Z519_00929T0	93.93	461	28	0	1	461	1	461	0	897
1	A105_02987T0	Z519_12042T0	93.93	494	30	0	1	494	25	518	0	966
9	A105_05269T0	Z519_08142T0	93.93	577	35	0	1	577	1	577	0	1092
3	A105_05584T0	Z519_03696T0	93.93	527	30	1	1	527	1	525	0	986
2	A105_07894T0	Z519_07725T0	93.93	659	34	1	1	659	1	653	0	1239
5	A105_08072T0	Z519_04328T0	93.93	445	27	0	1	445	43	487	0	868
11	A105_08367T0	Z519_09579T0	93.93	280	17	0	1	280	1	280	0	546
6	A105_09942T0	Z519_04205T0	93.93	214	13	0	2	215	35	248	8.00E-149	419
1	A105_10029T0	Z519_04138T0	93.93	626	38	0	1	626	1	626	0	1195
4	A105_10597T0	Z519_12557T0	93.93	280	17	0	1	280	1	280	0	503
2	A105_01073T0	Z519_00995T0	93.94	198	12	0	2	199	110	307	5.00E-128	383
3	A105_01273T0	Z519_08539T0	93.94	264	16	0	1	264	1	264	4.00E-168	475
129	A105_02146T0	Z519_01332T0	93.94	561	32	1	1	561	1	559	0	1093
6	A105_03063T0	Z519_11975T0	93.94	611	37	0	1	611	1	611	0	1182
1	A105_04141T0	Z519_03421T0	93.94	66	4	0	2	67	137	202	5.00E-37	128
1	A105_04630T0	Z519_02457T0	93.94	726	44	0	1	726	317	1042	0	1384
1	A105_06585T0	Z519_09079T0	93.94	561	33	1	1	561	1	560	0	1019
2	A105_07768T0	Z519_07581T0	93.94	462	28	0	1	462	1	462	0	849
1	A105_00015T0	Z519_00014T0	93.95	463	28	0	1	463	1	463	0	814
1	A105_00181T0	Z519_00183T0	93.95	463	28	0	1	463	1	463	0	874
1	A105_00353T0	Z519_00351T0	93.95	248	15	0	1	248	1	248	2.00E-113	337
60	A105_02134T0	Z519_01344T0	93.95	413	25	0	1	413	1	413	0	798
2	A105_02556T0	Z519_07086T0	93.95	479	29	0	1	479	1	479	0	903
36	A105_02963T0	Z519_12065T0	93.95	430	26	0	1	430	1	430	0	843
4	A105_04218T0	Z519_03498T0	93.95	397	24	0	2	398	1	397	0	752
3	A105_05454T0	Z519_08331T0	93.95	248	14	1	1	248	1	247	6.00E-162	452
25	A105_05508T0	Z519_03622T0	93.95	347	8	1	1	334	1	347	0	663
1	A105_06109T0	Z519_04628T0	93.95	446	25	1	1	444	1	446	0	788
4	A105_07339T0	Z519_05911T0	93.95	397	24	0	1	397	1	397	0	754
15	A105_08020T0	Z519_07857T0	93.95	1024	60	1	154	1175	1	1024	0	1962
62	A105_11326T0	Z519_02133T0	93.95	397	23	1	1	396	1	397	0	763
2	A105_12524T0	Z519_02855T0	93.95	413	25	0	1	413	24	436	0	797
3	A105_13286T0	Z519_12147T0	93.95	314	17	1	1	312	1	314	0	580
1	A105_00951T0	Z519_00885T0	93.96	745	41	1	1	745	1	741	0	1367

1	A105_03357T0	Z519_10180T0	93.96	530	31	1	1	530	5	533	0	993
2	A105_06452T0	Z519_09208T0	93.96	513	30	1	1	512	1	513	0	926
1	A105_07144T0	Z519_06357T0	93.96	530	32	0	1	530	1	530	0	965
1	A105_08168T0	Z519_09392T0	93.96	331	20	0	1	331	1	331	0	619
1	A105_09271T0	Z519_05378T0	93.96	629	36	2	1	629	1	627	0	1194
1	A105_10830T0	Z519_12238T0	93.96	563	31	1	1	563	1	560	0	1098
2	A105_12090T0	Z519_12351T0	93.96	414	25	0	1	414	83	496	0	778
71	A105_12915T0	Z519_11053T0	93.96	480	29	0	1	480	140	619	0	925
50	A105_00367T0	Z519_00366T0	93.97	1558	83	1	1	1558	122	1668	0	2880
1	A105_00427T0	Z519_00431T0	93.97	116	7	0	1	116	1	116	4.00E-75	221
1	A105_00615T0	Z519_00625T0	93.97	1012	60	1	1	1012	1	1011	0	1927
22	A105_01555T0	Z519_01866T0	93.97	514	31	0	1	514	1	514	0	975
31	A105_05332T0	Z519_08206T0	93.97	365	22	0	1	365	1	365	0	713
17	A105_06437T0	Z519_10604T0	93.97	697	35	2	1	695	1	692	0	1337
2	A105_07243T0	Z519_05821T0	93.97	348	21	0	1	348	1	348	0	651
1	A105_07842T0	Z519_07671T0	93.97	481	26	1	1	481	1	478	0	900
1	A105_10879T0	Z519_11418T0	93.97	232	14	0	1	232	1	232	1.00E-154	432
1	A105_03256T0	Z519_10105T0	93.98	665	38	2	1	664	7	670	0	1197
7	A105_07703T0	Z519_07525T0	93.98	997	60	0	1	997	1	997	0	1896
1	A105_08238T0	Z519_09458T0	93.98	166	10	0	1	166	1	166	1.00E-113	323
1	A105_09429T0	Z519_01157T0	93.98	133	8	0	62	194	1	133	1.00E-85	251
30	A105_09583T0	Z519_01013T0	93.98	332	20	0	1	332	1	332	0	624
16	A105_10598T0	Z519_12555T0	93.98	83	5	0	98	180	1	83	5.00E-49	155
4	A105_00739T0	Z519_00732T0	93.99	1181	67	1	1	1181	1	1177	0	2258
1	A105_04320T0	Z519_03597T0	93.99	316	17	2	1	315	1	315	0	600
2	A105_04859T0	Z519_02683T0	93.99	416	25	0	1	416	1	416	0	815
3	A105_04958T0	Z519_02782T0	93.99	865	52	0	1	865	1	865	0	1677
5	A105_06464T0	Z519_09196T0	93.99	366	22	0	1	366	1	366	0	711
3	A105_08170T0	Z519_09394T0	93.99	416	25	0	1	416	24	439	0	787
1	A105_08253T0	Z519_09475T0	93.99	849	48	1	1	849	1	846	0	1624
1	A105_10044T0	Z519_04122T0	93.99	366	22	0	1	366	12	377	0	715
9	A105_12104T0	Z519_12365T0	93.99	416	13	1	1	416	1	404	0	634
2	A105_12560T0	Z519_05486T0	93.99	383	17	2	17	399	1	377	0	716
18	A105_13242T0	Z519_12527T0	93.99	499	30	0	1	499	1	499	0	927
13	A105_00027T0	Z519_00027T0	94	100	6	0	1	100	416	515	1.00E-59	192

21	A105_00832T0	Z519_00778T0	94	1449	87	0	1	1449	1	1449	0	2808
12	A105_06475T0	Z519_09189T0	94	200	12	0	1	200	1	200	2.00E-140	393
3	A105_08795T0	Z519_03863T0	94	50	3	0	118	167	9	58	6.00E-23	98.2
2	A105_10168T0	Z519_12685T0	94	550	33	0	1	550	1	550	0	860
1	A105_10884T0	Z519_11423T0	94	866	52	0	1	866	1	866	0	1528
1	A105_01666T0	Z519_01750T0	94.01	334	20	0	1	334	5	338	0	593
1	A105_01730T0	Z519_01708T0	94.01	768	46	0	1	768	1	768	0	1407
11	A105_01794T0	Z519_01670T0	94.01	267	16	0	1	267	1	267	0	527
3	A105_03763T0	Z519_03085T0	94.01	568	34	0	1	568	1	568	0	956
2	A105_05823T0	Z519_04909T0	94.01	651	39	0	1	651	1	651	0	1288
1	A105_07932T0	Z519_07770T0	94.01	267	16	0	3	269	488	754	7.00E-157	458
5	A105_09028T0	Z519_05133T0	94.01	317	17	1	1	317	1	315	0	587
41	A105_11890T0	Z519_01993T0	94.01	601	36	0	1	601	1	601	0	1167
4	A105_13126T0	Z519_11252T0	94.01	217	13	0	1	217	1	217	1.00E-145	407
88	A105_00282T0	Z519_00291T0	94.02	518	16	1	1	503	1	518	0	928
2	A105_01175T0	Z519_08442T0	94.02	251	15	0	1	251	1	251	2.00E-154	435
2	A105_01895T0	Z519_01571T0	94.02	585	35	0	1	585	1	585	0	1117
19	A105_02607T0	Z519_07136T0	94.02	301	18	0	1	301	9	309	0	585
8	A105_03709T0	Z519_03028T0	94.02	368	22	0	1	368	1	368	0	714
23	A105_06789T0	Z519_06716T0	94.02	468	28	0	1	468	1	468	0	869
25	A105_06819T0	Z519_06681T0	94.02	234	14	0	1	234	1	234	6.00E-162	454
1	A105_07937T0	Z519_07772T0	94.02	585	34	1	1	585	1	584	0	935
1	A105_07972T0	Z519_07810T0	94.02	184	10	1	1	183	7	190	8.00E-125	352
2	A105_09817T0	Z519_10403T0	94.02	485	24	2	1	484	1	481	0	852
1	A105_09818T0	Z519_10402T0	94.02	769	29	2	1	752	1	769	0	1450
1	A105_01863T0	Z519_01602T0	94.03	419	25	0	1	419	1	419	0	793
1	A105_04060T0	Z519_03337T0	94.03	703	24	1	1	703	1	685	0	1357
1	A105_04968T0	Z519_02792T0	94.03	854	50	1	1	853	1	854	0	1558
1	A105_10149T0	Z519_04300T0	94.03	385	23	0	1	385	1	385	0	755
7	A105_10700T0	Z519_09885T0	94.03	67	4	0	1	67	366	432	7.00E-36	130
3	A105_10748T0	Z519_09936T0	94.03	268	16	0	1	268	1	268	0	517
32	A105_11125T0	Z519_08951T0	94.03	854	51	0	1	854	1	854	0	1635
7	A105_01577T0	Z519_01842T0	94.04	235	14	0	1	235	1	235	5.00E-163	459
5	A105_02388T0	Z519_06918T0	94.04	285	17	0	1	285	1	285	0	565
1	A105_09141T0	Z519_05251T0	94.04	604	36	0	1	604	1	604	0	1162

3	A105_10196T0	Z519_10862T0	94.04	470	26	2	1	469	1	469	0	903
4	A105_11688T0	Z519_08607T0	94.04	319	19	0	1	319	1	319	0	619
1	A105_00078T0	Z519_00077T0	94.05	252	15	0	1	252	1	252	5.00E-165	460
1	A105_00105T0	Z519_00105T0	94.05	571	32	1	1	571	1	569	0	961
2	A105_01944T0	Z519_01516T0	94.05	1075	64	0	1	1075	1	1075	0	2102
1	A105_03048T0	Z519_11989T0	94.05	605	36	0	1	605	1	605	0	1168
1	A105_05040T0	Z519_07931T0	94.05	185	11	0	4	188	1	185	1.00E-126	357
3	A105_06140T0	Z519_04597T0	94.05	521	31	0	1	521	1	521	0	1000
1	A105_07834T0	Z519_07650T0	94.05	336	1	1	1	317	1	336	0	633
16	A105_08552T0	Z519_04244T0	94.05	84	5	0	97	180	1	84	6.00E-52	163
2	A105_09305T0	Z519_01261T0	94.05	437	26	0	1	437	1	437	0	844
1	A105_03117T0	Z519_09970T0	94.06	387	22	1	1	386	66	452	0	721
33	A105_06478T0	Z519_09187T0	94.06	623	37	0	1	623	1	623	0	1223
1	A105_06810T0	Z519_06689T0	94.06	1061	62	1	1	1060	1	1061	0	1826
24	A105_07686T0	Z519_07509T0	94.06	623	37	0	1	623	1	623	0	1234
30	A105_10251T0	Z519_10916T0	94.06	320	19	0	1	320	1	320	0	631
15	A105_12036T0	Z519_05693T0	94.06	505	30	0	1	505	104	608	0	968
25	A105_02411T0	Z519_06939T0	94.07	455	27	0	1	455	1	455	0	868
5	A105_02920T0	Z519_12756T0	94.07	253	15	0	1	253	1	253	0	502
1	A105_03166T0	Z519_10016T0	94.07	135	8	0	1	135	1	135	3.00E-80	235
1	A105_03700T0	Z519_03019T0	94.07	792	43	1	1	788	1	792	0	1495
1	A105_05497T0	Z519_03613T0	94.07	405	24	0	1	405	83	487	0	789
1	A105_05807T0	Z519_04926T0	94.07	944	53	1	1	944	1	941	0	1772
2	A105_07532T0	Z519_06094T0	94.07	573	33	1	1	573	1	572	0	1061
134	A105_07722T0	Z519_07537T0	94.07	540	23	1	1	531	1	540	0	1064
95	A105_08035T0	Z519_07872T0	94.07	118	7	0	1	118	138	255	5.00E-75	225
12	A105_09417T0	Z519_01168T0	94.07	253	15	0	1	253	1	253	0	503
25	A105_10188T0	Z519_10854T0	94.07	590	35	0	1	590	1	590	0	1079
1	A105_11430T0	Z519_08710T0	94.07	405	24	0	1	405	1	405	0	738
1	A105_11921T0	Z519_02023T0	94.07	135	8	0	1	135	1	135	1.00E-53	168
2	A105_13154T0	Z519_04369T0	94.07	826	49	0	1	826	1	826	0	1599
1	A105_02119T0	Z519_01361T0	94.08	355	21	0	1	355	1	355	0	681
26	A105_02474T0	Z519_07007T0	94.08	321	19	0	4	324	14	334	0	616
3	A105_02966T0	Z519_12062T0	94.08	456	27	0	117	572	69	524	0	899
1	A105_03407T0	Z519_10228T0	94.08	321	19	0	1	321	1	321	0	618

5	A105_03950T0	Z519_03249T0	94.08	591	33	1	1	591	1	589	0	999
2	A105_04253T0	Z519_03531T0	94.08	591	35	0	1	591	1	591	0	1103
2	A105_04268T0	Z519_03545T0	94.08	709	42	0	1	709	1	709	0	1351
1	A105_07804T0	Z519_07619T0	94.08	1538	76	4	1	1534	1	1527	0	2477
1	A105_08469T0	Z519_05583T0	94.08	524	19	3	1	513	1	523	0	900
2	A105_00203T0	Z519_00205T0	94.09	609	35	1	1	609	1	608	0	1122
5	A105_02445T0	Z519_06977T0	94.09	744	42	1	1	742	1	744	0	1350
1	A105_02886T0	Z519_07417T0	94.09	491	29	0	11	501	1	491	0	952
34	A105_03301T0	Z519_10149T0	94.09	575	34	0	1	575	1	575	0	1132
1	A105_03823T0	Z519_03141T0	94.09	609	36	0	1	609	1	609	0	1187
9	A105_05224T0	Z519_08098T0	94.09	508	27	1	1	508	1	505	0	984
4	A105_05536T0	Z519_03652T0	94.09	778	45	1	1	778	1	777	0	1516
1	A105_06866T0	Z519_06636T0	94.09	220	13	0	27	246	1	220	2.00E-135	384
1	A105_07506T0	Z519_06072T0	94.09	999	59	0	1	999	1	999	0	1776
1	A105_08032T0	Z519_07869T0	94.09	592	35	0	34	625	12	603	0	1100
3	A105_08855T0	Z519_03798T0	94.09	541	32	0	1	541	1	541	0	1056
1	A105_11514T0	Z519_08792T0	94.09	677	21	1	1	658	41	717	0	1306
1	A105_13162T0	Z519_04362T0	94.09	930	54	1	1	930	1	929	0	1741
35	A105_00392T0	Z519_00394T0	94.1	271	16	0	1	271	1	271	0	527
1	A105_00533T0	Z519_00540T0	94.1	1152	68	0	1	1152	1	1152	0	1887
7	A105_00874T0	Z519_00822T0	94.1	339	20	0	1	339	775	1113	0	676
1	A105_01381T0	Z519_11888T0	94.1	271	16	0	14	284	14	284	7.00E-180	500
25	A105_01544T0	Z519_01875T0	94.1	322	19	0	1	322	170	491	0	644
7	A105_02919T0	Z519_12757T0	94.1	390	23	0	1	390	1	390	0	767
3	A105_03269T0	Z519_10118T0	94.1	390	23	0	3	392	61	450	0	734
1	A105_03475T0	Z519_09601T0	94.1	576	34	0	1	576	1	576	0	1125
5	A105_05134T0	Z519_08024T0	94.1	441	26	0	1	441	1	441	0	867
3	A105_05468T0	Z519_08344T0	94.1	678	40	0	1	678	1	678	0	1321
1	A105_06587T0	Z519_09077T0	94.1	390	21	1	1	390	1	388	0	637
18	A105_08317T0	Z519_09532T0	94.1	322	19	0	1	322	1	322	0	632
1	A105_09031T0	Z519_05136T0	94.1	339	20	0	1	339	1	339	0	665
1	A105_09861T0	Z519_10356T0	94.1	1152	56	2	1	1147	1	1145	0	1996
4	A105_10049T0	Z519_04117T0	94.1	441	26	0	1	441	1	441	0	851
11	A105_10603T0	Z519_12550T0	94.1	407	24	0	31	437	1	407	0	798
1	A105_11408T0	Z519_02051T0	94.1	882	52	0	14	895	14	895	0	1702

66	A105_11636T0	Z519_08662T0	94.1	746	44	0	1	746	216	961	0	1464
1	A105_12255T0	Z519_04498T0	94.1	339	19	1	26	364	23	360	0	614
1	A105_00068T0	Z519_00067T0	94.11	1070	61	1	1	1068	1	1070	0	1772
10	A105_00871T0	Z519_00820T0	94.11	594	35	0	1	594	1	594	0	1179
102	A105_00993T0	Z519_00921T0	94.11	577	34	0	1	577	1	577	0	1112
37	A105_05365T0	Z519_08238T0	94.11	577	34	0	1	577	1	577	0	1105
36	A105_06470T0	Z519_09192T0	94.11	509	30	0	1	509	35	543	0	959
1	A105_09765T0	Z519_10457T0	94.11	679	40	0	1	679	1	679	0	1282
1	A105_01280T0	Z519_08545T0	94.12	391	23	0	1	391	1	391	0	728
1	A105_03652T0	Z519_09780T0	94.12	102	6	0	1	102	1	102	4.00E-63	191
14	A105_04776T0	Z519_02601T0	94.12	408	24	0	1	408	1	408	0	806
4	A105_05573T0	Z519_03686T0	94.12	221	13	0	1	221	4	224	3.00E-159	442
2	A105_07166T0	Z519_06335T0	94.12	221	13	0	12	232	12	232	2.00E-140	395
3	A105_08388T0	Z519_05654T0	94.12	221	11	1	1	221	1	219	1.00E-138	390
1	A105_08788T0	Z519_03869T0	94.12	119	7	0	8	126	320	438	3.00E-66	209
1	A105_08850T0	Z519_03803T0	94.12	187	11	0	1	187	1	187	9.00E-130	365
81	A105_10583T0	Z519_12562T0	94.12	289	17	0	1	289	1	289	0	555
1	A105_11364T0	Z519_02094T0	94.12	289	17	0	1	289	1	289	0	568
1	A105_11460T0	Z519_08743T0	94.12	204	7	2	1	202	1	201	1.00E-115	330
1	A105_13222T0	Z519_12509T0	94.12	119	7	0	1	119	1	119	1.00E-79	233
4	A105_00250T0	Z519_00249T0	94.13	409	24	0	1	409	1	409	0	797
1	A105_02007T0	Z519_01453T0	94.13	494	29	0	1	494	1	494	0	979
3	A105_03784T0	Z519_03106T0	94.13	477	28	0	1	477	1	477	0	871
3	A105_10508T0	Z519_11386T0	94.13	392	23	0	1	392	1	392	0	744
32	A105_11617T0	Z519_08679T0	94.13	562	33	0	1	562	66	627	0	1113
1	A105_11901T0	Z519_02004T0	94.13	749	44	0	1	749	1	749	0	1439
2	A105_12115T0	Z519_12375T0	94.13	358	21	0	1	358	1	358	0	695
3	A105_12571T0	Z519_05472T0	94.13	341	20	0	1	341	1	341	0	676
42	A105_13407T0	Z519_12470T0	94.13	375	22	0	1	375	1	375	0	695
23	A105_00702T0	Z519_00696T0	94.14	597	35	0	17	613	12	608	0	1167
1	A105_06853T0	Z519_06650T0	94.14	222	12	1	1	222	1	221	3.00E-148	421
23	A105_07340T0	Z519_05912T0	94.14	546	32	0	1	546	1	546	0	1055
86	A105_07870T0	Z519_07700T0	94.14	512	12	1	1	512	1	494	0	981
1	A105_07911T0	Z519_07741T0	94.14	222	13	0	1	222	1	222	2.00E-149	418
12	A105_08273T0	Z519_09494T0	94.14	461	27	0	5	465	26	486	0	897

6	A105_09326T0	Z519_01239T0	94.14	529	30	1	1	529	1	528	0	960
23	A105_09690T0	Z519_10517T0	94.14	648	37	1	56	703	1	647	0	1200
1	A105_10405T0	Z519_11282T0	94.14	256	15	0	1	256	72	327	0	506
1	A105_11538T0	Z519_11558T0	94.14	222	13	0	1	222	1	222	3.00E-151	422
29	A105_11666T0	Z519_08630T0	94.14	324	18	1	1	324	1	323	0	607
25	A105_00095T0	Z519_00094T0	94.15	410	24	0	1	410	2	411	0	790
5	A105_01365T0	Z519_11903T0	94.15	427	25	0	1	427	1	427	0	834
9	A105_02601T0	Z519_07130T0	94.15	1197	70	0	1	1197	1	1197	0	2255
1	A105_04702T0	Z519_02532T0	94.15	376	22	0	1	376	37	412	0	717
24	A105_06094T0	Z519_04649T0	94.15	718	39	1	4	718	9	726	0	1406
2	A105_07970T0	Z519_07808T0	94.15	1197	61	3	1	1193	1	1192	0	1760
1	A105_08517T0	Z519_05534T0	94.15	530	31	0	1	530	1	530	0	1007
6	A105_01363T0	Z519_11905T0	94.16	2225	130	0	1	2225	1	2225	0	4288
1	A105_03663T0	Z519_02984T0	94.16	976	54	1	1	976	1	973	0	1785
10	A105_04115T0	Z519_03390T0	94.16	531	25	2	1	531	1	525	0	981
5	A105_04628T0	Z519_02455T0	94.16	771	45	0	1	771	1	771	0	1441
1	A105_06987T0	Z519_06512T0	94.16	154	9	0	1	154	1	154	3.00E-105	300
2	A105_08221T0	Z519_09443T0	94.16	137	8	0	1	137	1	137	4.00E-93	268
1	A105_11767T0	Z519_02913T0	94.16	531	31	0	1	531	1	531	0	949
2	A105_12576T0	Z519_05467T0	94.16	411	24	0	21	431	1	411	0	768
1	A105_12789T0	Z519_12798T0	94.16	514	28	1	1	514	1	512	0	995
5	A105_13398T0	Z519_04226T0	94.16	719	40	2	1	718	1	718	0	1333
1	A105_00675T0	Z519_00670T0	94.17	240	14	0	27	266	1	240	1.00E-165	462
14	A105_01251T0	Z519_08517T0	94.17	549	31	1	1	548	1	549	0	1001
21	A105_03243T0	Z519_10092T0	94.17	806	45	2	1	806	1	804	0	1569
6	A105_05600T0	Z519_03709T0	94.17	223	13	0	1	223	124	346	1.00E-147	431
57	A105_06377T0	Z519_10663T0	94.17	480	24	1	1	476	1	480	0	896
109	A105_09864T0	Z519_10353T0	94.17	617	12	1	1	593	1	617	0	1124
36	A105_10285T0	Z519_10951T0	94.17	309	18	0	1	309	1	309	0	564
10	A105_10542T0	Z519_12601T0	94.17	343	20	0	1	343	144	486	0	660
1	A105_10893T0	Z519_11432T0	94.17	326	18	1	1	325	1	326	0	592
5	A105_11193T0	Z519_08889T0	94.17	240	14	0	1	240	1	240	2.00E-165	460
28	A105_11229T0	Z519_08851T0	94.17	1167	68	0	1	1167	1	1167	0	2257
2	A105_11512T0	Z519_08790T0	94.17	206	12	0	1	206	14	219	1.00E-143	402
1	A105_12055T0	Z519_12313T0	94.17	103	6	0	1	103	1	103	1.00E-66	198

2	A105_13106T0	Z519_11233T0	94.17	103	6	0	1	103	67	169	1.00E-65	198
3	A105_00149T0	Z519_00149T0	94.18	275	16	0	1	275	1	275	0	539
1	A105_00559T0	Z519_00570T0	94.18	567	33	0	1	567	1	567	0	1084
1	A105_01974T0	Z519_01485T0	94.18	481	23	1	1	481	1	476	0	889
23	A105_03439T0	Z519_10261T0	94.18	704	39	1	1	702	36	739	0	1343
2	A105_03698T0	Z519_03017T0	94.18	395	23	0	1	395	1	395	0	777
1	A105_04046T0	Z519_03326T0	94.18	601	35	0	1	601	1	601	0	1125
1	A105_05112T0	Z519_08002T0	94.18	447	26	0	1	447	1	447	0	795
2	A105_05744T0	Z519_04997T0	94.18	361	21	0	1	361	1	361	0	704
65	A105_06936T0	Z519_06563T0	94.18	807	46	1	2	808	9	814	0	1583
1	A105_08050T0	Z519_07885T0	94.18	1357	68	2	1	1347	1	1356	0	2451
1	A105_09963T0	Z519_04184T0	94.18	670	38	1	1	670	1	669	0	1290
3	A105_11556T0	Z519_11540T0	94.18	1203	60	2	1	1195	1	1201	0	2252
1	A105_11740T0	Z519_02940T0	94.18	378	22	0	1	378	1	378	0	681
4	A105_00692T0	Z519_00686T0	94.19	602	35	0	1	602	1	602	0	1147
1	A105_00724T0	Z519_00716T0	94.19	551	32	0	1	551	1	551	0	1035
16	A105_02883T0	Z519_07414T0	94.19	344	20	0	1	344	1	344	0	667
9	A105_04174T0	Z519_03452T0	94.19	654	32	2	1	654	1	648	0	1120
30	A105_05673T0	Z519_11176T0	94.19	344	20	0	1	344	1	344	0	668
2	A105_07135T0	Z519_06366T0	94.19	241	14	0	72	312	191	431	2.00E-167	476
92	A105_07211T0	Z519_11933T0	94.19	602	23	1	5	594	4	605	0	1175
2	A105_09351T0	Z519_01217T0	94.19	413	24	0	1	413	1	413	0	796
1	A105_10485T0	Z519_11361T0	94.19	981	57	0	1	981	1	981	0	1856
1	A105_12006T0	Z519_05723T0	94.19	172	9	1	1	171	1	172	5.00E-98	283
3	A105_12191T0	Z519_04558T0	94.19	258	15	0	1	258	1	258	1.00E-153	431
9	A105_13173T0	Z519_04351T0	94.19	310	18	0	1	310	1	310	0	607
58	A105_00465T0	Z519_00472T0	94.2	828	38	1	1	828	1	818	0	1551
1	A105_02124T0	Z519_01354T0	94.2	138	8	0	1	138	1	138	2.00E-93	269
98	A105_05651T0	Z519_11198T0	94.2	569	33	0	1	569	1	569	0	1123
5	A105_08125T0	Z519_09348T0	94.2	569	33	0	1	569	32	600	0	1097
1	A105_08885T0	Z519_03768T0	94.2	345	17	1	1	345	1	342	0	613
1	A105_09146T0	Z519_05256T0	94.2	621	34	1	1	621	1	619	0	1149
5	A105_13400T0	Z519_04227T0	94.2	345	20	0	1	345	241	585	0	677
2	A105_00686T0	Z519_00681T0	94.21	328	19	0	1	328	1	328	0	640
2	A105_01892T0	Z519_01574T0	94.21	121	7	0	2	122	2	122	3.00E-81	237

2	A105_03464T0	Z519_09589T0	94.21	380	14	1	1	380	1	372	0	746
1	A105_04263T0	Z519_03541T0	94.21	328	19	0	1	328	1	328	0	641
1	A105_05316T0	Z519_08191T0	94.21	397	23	0	1	397	1	397	0	709
1	A105_05703T0	Z519_11147T0	94.21	259	15	0	1	259	1	259	8.00E-159	445
2	A105_06301T0	Z519_10722T0	94.21	449	26	0	1	449	1	449	0	871
3	A105_06451T0	Z519_09209T0	94.21	950	46	2	1	948	1	943	0	1808
1	A105_07430T0	Z519_06002T0	94.21	1469	85	0	1	1469	1	1469	0	2746
4	A105_11250T0	Z519_08828T0	94.21	553	32	0	1	553	1	553	0	1059
14	A105_12486T0	Z519_02820T0	94.21	311	18	0	1	311	1	311	0	601
1	A105_04118T0	Z519_03395T0	94.22	588	33	1	2	588	20	607	0	1092
1	A105_07459T0	Z519_06026T0	94.22	398	23	0	1	398	1	398	0	783
150	A105_10774T0	Z519_12291T0	94.22	277	16	0	1	277	1	277	0	539
107	A105_13139T0	Z519_04383T0	94.22	294	17	0	1	294	1	294	0	565
31	A105_00431T0	Z519_00437T0	94.23	728	42	0	1	728	1	728	0	1405
13	A105_03429T0	Z519_10251T0	94.23	884	51	0	1	884	1	884	0	1631
9	A105_03569T0	Z519_09691T0	94.23	867	49	1	19	885	43	908	0	1672
1	A105_03945T0	Z519_03242T0	94.23	381	21	1	1	381	1	380	0	696
88	A105_04325T0	Z519_03602T0	94.23	485	28	0	1	485	1	485	0	939
3	A105_04753T0	Z519_02581T0	94.23	520	12	1	1	502	1	520	0	972
2	A105_05580T0	Z519_03693T0	94.23	416	20	1	1	412	1	416	0	801
1	A105_06161T0	Z519_04579T0	94.23	710	40	1	1	710	1	709	0	1359
1	A105_06757T0	Z519_06749T0	94.23	503	29	0	1	503	1	503	0	950
10	A105_12152T0	Z519_09265T0	94.23	607	34	1	1	607	1	606	0	1155
2	A105_01362T0	Z519_11906T0	94.24	417	24	0	1	417	1	417	0	811
7	A105_02133T0	Z519_01345T0	94.24	1615	77	3	1	1605	1	1609	0	3137
1	A105_02485T0	Z519_07018T0	94.24	399	23	0	1	399	1	399	0	717
1	A105_03265T0	Z519_10115T0	94.24	330	19	0	26	355	26	355	1.00E-144	444
2	A105_04850T0	Z519_02674T0	94.24	347	20	0	8	354	33	379	0	688
1	A105_06945T0	Z519_06552T0	94.24	556	32	0	1	556	1	556	0	960
1	A105_07217T0	Z519_05795T0	94.24	538	31	0	1	538	30	567	0	1036
2	A105_07997T0	Z519_07833T0	94.24	330	19	0	27	356	11	340	0	576
3	A105_08513T0	Z519_05538T0	94.24	278	16	0	1	278	1	278	0	544
15	A105_10537T0	Z519_12606T0	94.24	556	32	0	1	556	1	556	0	1096
46	A105_10863T0	Z519_11401T0	94.24	729	42	0	1	729	1	729	0	1415
9	A105_13117T0	Z519_11243T0	94.24	347	20	0	1	347	1	347	0	682

24	A105_13397T0	Z519_04225T0	94.24	955	55	0	1	955	1	955	0	1789
6	A105_13442T0	Z519_12178T0	94.24	451	23	1	1	451	1	448	0	885
1	A105_03822T0	Z519_03141T0	94.25	522	30	0	1	522	612	1133	0	1023
1	A105_04878T0	Z519_02702T0	94.25	1043	60	0	1	1043	1	1043	0	2028
2	A105_05256T0	Z519_08129T0	94.25	348	20	0	1	348	1	348	0	666
21	A105_05545T0	Z519_03663T0	94.25	261	15	0	1	261	1	261	0	502
1	A105_06327T0	Z519_10698T0	94.25	365	21	0	1	365	1	365	0	719
100	A105_06386T0	Z519_10654T0	94.25	1252	72	0	1	1252	1	1252	0	2415
10	A105_07209T0	Z519_11934T0	94.25	365	21	0	56	420	30	394	0	672
7	A105_09752T0	Z519_10469T0	94.25	487	27	1	1	487	1	486	0	938
1	A105_04386T0	Z519_02213T0	94.26	680	38	1	1	680	1	679	0	1268
1	A105_04727T0	Z519_02557T0	94.26	331	19	0	1	331	1	331	0	600
1	A105_05228T0	Z519_08102T0	94.26	331	19	0	1	331	1	331	0	544
2	A105_06486T0	Z519_09178T0	94.26	418	23	1	1	418	1	417	0	764
1	A105_06930T0	Z519_06569T0	94.26	366	21	0	1	366	1	366	0	691
1	A105_07244T0	Z519_05822T0	94.26	366	21	0	1	366	1	366	0	620
3	A105_11246T0	Z519_08831T0	94.26	1238	70	1	1	1237	1	1238	0	2370
3	A105_01932T0	Z519_01528T0	94.27	506	29	0	1	506	1	506	0	976
3	A105_02770T0	Z519_07302T0	94.27	576	33	0	1	576	1	576	0	1141
1	A105_04427T0	Z519_02259T0	94.27	611	35	0	1	611	1	611	0	1193
1	A105_09256T0	Z519_05364T0	94.27	157	9	0	1	157	1	157	5.00E-107	305
1	A105_11056T0	Z519_06857T0	94.27	541	28	1	1	541	1	538	0	991
1	A105_00301T0	Z519_00311T0	94.28	437	24	1	1	437	1	436	0	801
27	A105_01009T0	Z519_00935T0	94.28	367	21	0	1	367	1	367	0	721
12	A105_01352T0	Z519_11917T0	94.28	787	43	1	1	787	324	1108	0	1488
62	A105_02521T0	Z519_07052T0	94.28	297	17	0	1	297	1	297	0	560
50	A105_02975T0	Z519_12054T0	94.28	297	17	0	1	297	1	297	0	553
3	A105_05392T0	Z519_08266T0	94.28	367	18	1	12	378	13	376	0	603
1	A105_11224T0	Z519_08856T0	94.28	332	19	0	1	332	1	332	0	595
1	A105_11879T0	Z519_01983T0	94.28	629	36	0	1	629	1	629	0	1213
5	A105_00280T0	Z519_00289T0	94.29	333	19	0	1	333	1	333	0	656
55	A105_01332T0	Z519_11932T0	94.29	543	31	0	1	543	1	543	0	1058
20	A105_01869T0	Z519_01594T0	94.29	473	27	0	116	588	10	482	0	922
1	A105_04837T0	Z519_02661T0	94.29	105	6	0	1	105	1	105	3.00E-61	201
1	A105_05322T0	Z519_08197T0	94.29	701	39	1	65	764	16	716	0	1360

1	A105_07360T0	Z519_05932T0	94.29	105	6	0	1	105	1	105	8.00E-66	196
4	A105_07496T0	Z519_06062T0	94.29	543	31	0	1	543	1	543	0	1041
39	A105_09516T0	Z519_01072T0	94.29	665	38	0	1	665	1	665	0	1311
2	A105_09882T0	Z519_10336T0	94.29	175	10	0	1	175	1	175	2.00E-100	290
1	A105_10491T0	Z519_11367T0	94.29	175	8	1	1	175	1	173	2.00E-115	328
2	A105_11676T0	Z519_08620T0	94.29	105	6	0	1	105	1	105	8.00E-69	204
21	A105_00968T0	Z519_00905T0	94.3	386	22	0	1	386	1	386	0	757
50	A105_01973T0	Z519_01486T0	94.3	579	33	0	1	579	48	626	0	1134
1	A105_02326T0	Z519_11649T0	94.3	491	28	0	1	491	1	491	0	960
3	A105_03368T0	Z519_10190T0	94.3	421	23	1	1	421	1	420	0	800
1	A105_03937T0	Z519_03234T0	94.3	263	15	0	1	263	1	263	0	511
1	A105_04008T0	Z519_03305T0	94.3	421	24	0	1	421	1	421	0	826
2	A105_04562T0	Z519_02389T0	94.3	386	22	0	1	386	25	410	0	746
1	A105_06096T0	Z519_04647T0	94.3	456	26	0	4	459	1	456	0	876
5	A105_07322T0	Z519_09297T0	94.3	228	13	0	1	228	1	228	2.00E-158	441
1	A105_10017T0	Z519_04153T0	94.3	421	24	0	1	421	1	421	0	837
1	A105_10532T0	Z519_12612T0	94.3	193	11	0	1	193	1	193	5.00E-125	353
1	A105_10889T0	Z519_11428T0	94.3	947	50	1	1	943	1	947	0	1764
2	A105_11749T0	Z519_02931T0	94.3	421	24	0	10	430	2	422	0	820
98	A105_12140T0	Z519_09253T0	94.3	491	27	1	1	491	1	490	0	931
1	A105_12204T0	Z519_04547T0	94.3	263	15	0	1	263	1	263	4.00E-171	476
1	A105_13279T0	Z519_12153T0	94.3	193	9	1	2	194	125	315	5.00E-130	371
6	A105_01797T0	Z519_01667T0	94.31	633	36	0	1	633	1	633	0	1204
138	A105_02207T0	Z519_11768T0	94.31	299	17	0	1	299	1	299	0	575
5	A105_03001T0	Z519_12028T0	94.31	299	17	0	1	299	1	299	0	582
2	A105_03870T0	Z519_03188T0	94.31	422	20	2	1	422	11	428	0	741
7	A105_06548T0	Z519_09117T0	94.31	404	23	0	1	404	1	404	0	791
2	A105_07714T0	Z519_07536T0	94.31	299	17	0	1	299	1	299	0	586
1	A105_09838T0	Z519_10379T0	94.31	211	12	0	1	211	1	211	4.00E-116	333
1	A105_10513T0	Z519_12630T0	94.31	843	48	0	1	843	1	843	0	1583
1	A105_13292T0	Z519_12143T0	94.31	123	7	0	1	123	1	123	5.00E-79	231
1	A105_01501T0	Z519_01913T0	94.32	229	13	0	1	229	1	229	2.00E-159	444
1	A105_01532T0	Z519_01888T0	94.32	440	24	1	1	439	1	440	0	824
49	A105_01545T0	Z519_01874T0	94.32	405	20	2	8	409	42	446	0	766
3	A105_01817T0	Z519_01648T0	94.32	387	22	0	1	387	1	387	0	741

3	A105_02072T0	Z519_01406T0	94.32	775	40	3	1	771	1	775	0	1503
2	A105_02369T0	Z519_11603T0	94.32	176	10	0	1	176	1	176	1.00E-121	344
166	A105_05945T0	Z519_04789T0	94.32	528	11	1	1	528	1	509	0	1033
4	A105_05966T0	Z519_04769T0	94.32	264	15	0	1	264	1	264	0	519
10	A105_07292T0	Z519_05868T0	94.32	775	44	0	1	775	1	775	0	1531
1	A105_07611T0	Z519_06174T0	94.32	1321	75	0	1	1321	1	1321	0	2538
1	A105_07672T0	Z519_06236T0	94.32	387	22	0	1	387	1	387	0	707
15	A105_09643T0	Z519_10561T0	94.32	387	17	1	1	382	1	387	0	752
5	A105_10693T0	Z519_09879T0	94.32	493	21	1	1	493	1	486	0	964
3	A105_12688T0	Z519_09820T0	94.32	740	37	2	1	740	1	735	0	1343
3	A105_13127T0	Z519_11253T0	94.32	176	10	0	41	216	1	176	9.00E-123	348
3	A105_03351T0	Z519_10175T0	94.33	335	19	0	1	335	1	335	0	659
3	A105_05291T0	Z519_08165T0	94.33	335	19	0	1	335	1	335	0	627
133	A105_05366T0	Z519_08239T0	94.33	582	33	0	2	583	5	586	0	1023
9	A105_08393T0	Z519_05649T0	94.33	653	35	1	1	653	1	651	0	1290
1	A105_08763T0	Z519_03894T0	94.33	247	14	0	1	247	1	247	4.00E-138	391
12	A105_09880T0	Z519_10338T0	94.33	476	27	0	1	476	1	476	0	872
17	A105_11690T0	Z519_08605T0	94.33	282	16	0	4	285	102	383	0	559
97	A105_00975T0	Z519_00912T0	94.34	583	33	0	1	583	1	583	0	1162
26	A105_02078T0	Z519_01400T0	94.34	865	47	2	1	865	1	863	0	1440
15	A105_04070T0	Z519_03346T0	94.34	512	21	1	1	504	1	512	0	993
1	A105_04529T0	Z519_02356T0	94.34	106	6	0	1	106	1	106	6.00E-68	202
4	A105_06461T0	Z519_09199T0	94.34	830	47	0	1	830	1	830	0	1603
22	A105_06918T0	Z519_06581T0	94.34	654	37	0	1	654	1	654	0	1269
1	A105_09056T0	Z519_05168T0	94.34	1591	87	1	1	1588	1	1591	0	2955
5	A105_09244T0	Z519_05354T0	94.34	601	34	0	1	601	1	601	0	1162
8	A105_09682T0	Z519_10525T0	94.34	389	22	0	1	389	1	389	0	768
1	A105_10118T0	Z519_04267T0	94.34	1043	59	0	1	1043	59	1101	0	1984
1	A105_00517T0	Z519_00524T0	94.35	301	17	0	13	313	61	361	0	558
13	A105_01579T0	Z519_01841T0	94.35	619	31	1	1	615	193	811	0	1167
1	A105_02022T0	Z519_01435T0	94.35	496	28	0	1	496	1	496	0	983
1	A105_05724T0	Z519_11127T0	94.35	921	48	2	1	921	1	917	0	1576
7	A105_06818T0	Z519_06682T0	94.35	619	35	0	129	747	1	619	0	1179
1	A105_07646T0	Z519_06210T0	94.35	496	26	1	7	502	107	600	0	904
141	A105_08540T0	Z519_05511T0	94.35	460	26	0	72	531	1	460	0	899

5	A105_09528T0	Z519_01059T0	94.35	124	7	0	1	124	1	124	2.00E-83	242
4	A105_11434T0	Z519_08714T0	94.35	2918	153	2	11	2927	6	2912	0	5595
2	A105_12815T0	Z519_12531T0	94.35	354	19	1	11	364	560	912	0	684
1	A105_02299T0	Z519_11677T0	94.36	939	51	1	1	939	1	937	0	1781
8	A105_02393T0	Z519_06923T0	94.36	337	19	0	1	337	3	339	0	667
1	A105_02820T0	Z519_07350T0	94.36	408	22	1	1	408	1	407	0	770
1	A105_03881T0	Z519_03199T0	94.36	319	17	1	1	319	1	318	6.00E-170	478
3	A105_04213T0	Z519_03493T0	94.36	550	31	0	1	550	1	550	0	1086
1	A105_07332T0	Z519_05904T0	94.36	940	53	0	1	940	1	940	0	1771
1	A105_09419T0	Z519_01166T0	94.36	763	34	2	1	763	1	754	0	1396
6	A105_13185T0	Z519_04337T0	94.36	585	33	0	16	600	144	728	0	1150
4	A105_01559T0	Z519_01862T0	94.37	302	17	0	1	302	1	302	0	580
9	A105_03550T0	Z519_09673T0	94.37	639	36	0	1	639	179	817	0	1255
1	A105_05351T0	Z519_08224T0	94.37	586	30	2	1	586	1	583	0	952
13	A105_06827T0	Z519_06674T0	94.37	373	8	1	55	427	8	367	0	698
16	A105_10048T0	Z519_04118T0	94.37	622	35	0	1	622	1	622	0	1177
1	A105_11555T0	Z519_11541T0	94.37	355	20	0	1	355	1	355	0	639
1	A105_12120T0	Z519_12380T0	94.37	444	25	0	1	444	1	444	0	838
26	A105_12723T0	Z519_09790T0	94.37	426	7	1	1	409	1	426	0	829
2	A105_13409T0	Z519_12472T0	94.37	142	8	0	1	142	1	142	1.00E-67	203
1	A105_00548T0	Z519_00558T0	94.38	480	27	0	1	480	1	480	0	859
23	A105_00592T0	Z519_00602T0	94.38	267	15	0	1	267	1	267	0	519
22	A105_00679T0	Z519_00674T0	94.38	658	37	0	1	658	1	658	0	1290
2	A105_03022T0	Z519_04637T0	94.38	249	14	0	57	305	1	249	1.00E-171	483
1	A105_03409T0	Z519_10230T0	94.38	89	4	1	1	88	1	89	8.00E-56	169
139	A105_05100T0	Z519_07990T0	94.38	445	24	1	1	445	1	444	0	842
10	A105_05388T0	Z519_08262T0	94.38	658	37	0	1	658	1	658	0	1213
9	A105_06120T0	Z519_04616T0	94.38	605	34	0	1	605	1	605	0	1170
3	A105_07007T0	Z519_06493T0	94.38	338	19	0	1	338	1	338	0	656
1	A105_07069T0	Z519_06431T0	94.38	160	9	0	1	160	1	160	6.00E-113	320
1	A105_07968T0	Z519_07806T0	94.38	249	12	1	1	249	1	247	8.00E-154	431
2	A105_09377T0	Z519_01191T0	94.38	160	9	0	1	160	1	160	1.00E-108	309
1	A105_10203T0	Z519_10869T0	94.38	623	35	0	14	636	14	636	0	1172
2	A105_11832T0	Z519_01938T0	94.38	249	14	0	1	249	1	249	1.00E-168	469
20	A105_12777T0	Z519_10836T0	94.38	729	34	1	1	729	1	722	0	1360

2	A105_13456T0	Z519_12705T0	94.38	178	10	0	1	178	1	178	1.00E-124	351
1	A105_00472T0	Z519_00479T0	94.39	677	37	1	1	677	1	676	0	1155
1	A105_01745T0	Z519_01693T0	94.39	1212	64	3	1	1212	1	1208	0	2151
1	A105_03430T0	Z519_10252T0	94.39	874	43	2	1	873	1	869	0	1509
1	A105_03995T0	Z519_03293T0	94.39	2173	122	0	1	2173	1	2173	0	4280
11	A105_07761T0	Z519_07574T0	94.39	642	36	0	1	642	1	642	0	1261
3	A105_10070T0	Z519_04101T0	94.39	303	15	1	1	303	1	301	0	597
155	A105_10249T0	Z519_10914T0	94.39	499	28	0	8	506	20	518	0	995
1	A105_12591T0	Z519_05452T0	94.39	214	12	0	1	214	1	214	3.00E-149	417
4	A105_00450T0	Z519_00457T0	94.4	357	20	0	1	357	1	357	0	689
14	A105_02223T0	Z519_11752T0	94.4	357	19	1	1	357	34	389	0	696
1	A105_04295T0	Z519_03575T0	94.4	482	27	0	34	515	1	482	0	922
1	A105_06671T0	Z519_08998T0	94.4	1000	53	2	1	998	1	999	0	1770
32	A105_07597T0	Z519_06160T0	94.4	339	19	0	1	339	1	339	0	612
1	A105_10463T0	Z519_11340T0	94.4	696	38	1	1	696	1	695	0	1309
1	A105_11127T0	Z519_08948T0	94.4	411	23	0	6	416	4	414	0	739
1	A105_11920T0	Z519_02022T0	94.4	268	15	0	1	268	1	268	3.00E-140	399
12	A105_12421T0	Z519_06256T0	94.4	518	21	1	1	518	1	510	0	982
27	A105_12624T0	Z519_05416T0	94.4	518	29	0	1	518	1	518	0	997
6	A105_00523T0	Z519_00530T0	94.41	1109	57	1	1	1109	1	1104	0	2115
153	A105_02593T0	Z519_07123T0	94.41	537	26	1	1	533	1	537	0	1010
3	A105_05070T0	Z519_07960T0	94.41	608	29	2	1	603	1	608	0	1107
3	A105_09010T0	Z519_05115T0	94.41	179	10	0	16	194	16	194	3.00E-122	347
1	A105_11764T0	Z519_02916T0	94.41	1001	56	0	1	1001	1	1001	0	1883
2	A105_11977T0	Z519_05755T0	94.41	161	9	0	1	161	1	161	1.00E-105	301
48	A105_03623T0	Z519_09750T0	94.42	699	39	0	1	699	1	699	0	1344
1	A105_08127T0	Z519_09350T0	94.42	753	41	1	1	753	1	752	0	1358
25	A105_09464T0	Z519_01122T0	94.42	1273	69	1	1	1273	1	1271	0	2420
43	A105_12806T0	Z519_12783T0	94.42	520	23	1	1	520	1	514	0	1017
1	A105_04209T0	Z519_03488T0	94.43	431	24	0	1	431	1	431	0	803
40	A105_05021T0	Z519_07908T0	94.43	503	28	0	1	503	1	503	0	971
3	A105_05274T0	Z519_08147T0	94.43	610	34	0	1	610	1	610	0	1107
7	A105_07565T0	Z519_06129T0	94.43	539	30	0	1	539	1	539	0	1010
10	A105_08905T0	Z519_03748T0	94.43	915	51	0	603	1517	1	915	0	1701
1	A105_08996T0	Z519_05101T0	94.43	395	17	1	1	395	1	390	0	712

1	A105_09023T0	Z519_05128T0	94.43	431	15	1	1	431	51	472	0	725
79	A105_09037T0	Z519_05142T0	94.43	574	9	3	1	551	1	574	0	1101
1	A105_09059T0	Z519_05171T0	94.43	449	25	0	1	449	1	449	0	845
2	A105_09495T0	Z519_01088T0	94.43	323	18	0	1	323	1	323	0	629
10	A105_12231T0	Z519_04523T0	94.43	305	17	0	1	305	1	305	0	600
23	A105_12334T0	Z519_12419T0	94.43	700	39	0	1	700	1	700	0	1385
2	A105_01488T0	Z519_11781T0	94.44	288	16	0	1	288	1	288	0	556
20	A105_01945T0	Z519_01515T0	94.44	486	25	1	1	484	1	486	0	938
1	A105_02784T0	Z519_07316T0	94.44	234	13	0	1	234	1	234	2.00E-151	424
62	A105_03512T0	Z519_09636T0	94.44	288	16	0	34	321	1	288	0	543
2	A105_03897T0	Z519_03212T0	94.44	144	8	0	1	144	33	176	8.00E-99	284
1	A105_04646T0	Z519_02474T0	94.44	108	6	0	1	108	1	108	8.00E-60	181
1	A105_05165T0	Z519_08054T0	94.44	162	9	0	1	162	1	162	7.00E-111	315
21	A105_06055T0	Z519_04684T0	94.44	593	27	2	7	595	1	591	0	1034
1	A105_06593T0	Z519_09072T0	94.44	36	2	0	17	52	333	368	7.00E-15	68.9
29	A105_06670T0	Z519_08999T0	94.44	360	18	1	1	360	1	358	0	698
1	A105_06871T0	Z519_06629T0	94.44	234	13	0	1	234	1	234	5.00E-168	466
10	A105_08392T0	Z519_05650T0	94.44	144	8	0	1	144	1	144	3.00E-96	280
4	A105_09721T0	Z519_10487T0	94.44	180	10	0	1	180	1	180	6.00E-129	362
11	A105_09780T0	Z519_10440T0	94.44	180	10	0	1	180	1	180	9.00E-127	357
2	A105_09803T0	Z519_10417T0	94.44	90	4	1	47	135	139	228	2.00E-45	149
4	A105_10229T0	Z519_10896T0	94.44	701	39	0	1	701	1	701	0	1341
19	A105_11384T0	Z519_02073T0	94.44	288	16	0	1	288	1	288	0	558
4	A105_11618T0	Z519_08678T0	94.44	90	3	1	34	123	61	148	3.00E-57	177
7	A105_11744T0	Z519_02936T0	94.44	342	14	1	1	342	1	337	0	649
1	A105_11951T0	Z519_05782T0	94.44	342	19	0	1	342	1	342	0	570
7	A105_04462T0	Z519_02294T0	94.45	649	32	1	1	645	1	649	0	1207
1	A105_05039T0	Z519_07930T0	94.45	757	42	0	1	757	1	757	0	1482
24	A105_09510T0	Z519_01080T0	94.45	631	26	1	1	631	1	622	0	1199
69	A105_02305T0	Z519_11671T0	94.46	343	6	1	1	343	1	330	0	638
1	A105_04401T0	Z519_02232T0	94.46	307	17	0	1	307	1	307	0	568
1	A105_05156T0	Z519_08047T0	94.46	361	20	0	1	361	1	361	0	711
1	A105_06939T0	Z519_06560T0	94.46	343	14	1	37	374	11	353	0	677
4	A105_07507T0	Z519_06073T0	94.46	1120	29	3	1	1120	1	1087	0	2150
10	A105_07823T0	Z519_07639T0	94.46	505	24	3	57	558	24	527	0	943

10	A105_08278T0	Z519_09499T0	94.46	271	15	0	1	271	1	271	0	514
1	A105_08719T0	Z519_03939T0	94.46	686	38	0	1	686	1	686	0	1289
2	A105_09830T0	Z519_10387T0	94.46	307	14	1	1	307	1	304	9.00E-168	471
1	A105_12252T0	Z519_04501T0	94.46	415	23	0	1	415	1	415	0	796
49	A105_12449T0	Z519_12662T0	94.46	542	30	0	16	557	146	687	0	1055
4	A105_00341T0	Z519_00346T0	94.47	398	17	1	1	398	1	393	0	766
4	A105_00404T0	Z519_00405T0	94.47	434	23	1	1	433	1	434	0	832
63	A105_05151T0	Z519_08042T0	94.47	253	14	0	1	253	1	253	2.00E-180	499
5	A105_08836T0	Z519_03817T0	94.47	398	6	1	157	554	1	382	0	768
4	A105_10637T0	Z519_09825T0	94.47	524	29	0	1	524	1	524	0	1006
6	A105_12064T0	Z519_12324T0	94.47	1555	59	2	1	1555	1	1528	0	3021
1	A105_12852T0	Z519_07457T0	94.47	470	24	1	1	468	1	470	0	809
1	A105_04281T0	Z519_03559T0	94.48	743	35	5	1	741	243	981	0	1204
2	A105_05659T0	Z519_11189T0	94.48	471	24	1	1	471	1	469	0	928
93	A105_06083T0	Z519_04661T0	94.48	580	15	1	1	580	1	563	0	1140
1	A105_06491T0	Z519_09172T0	94.48	562	31	0	1	562	1	562	0	1015
1	A105_06689T0	Z519_08980T0	94.48	471	21	2	1	470	1	467	0	808
26	A105_07926T0	Z519_07764T0	94.48	344	17	1	1	344	1	342	0	668
98	A105_08324T0	Z519_09539T0	94.48	580	24	1	1	580	1	572	0	1144
18	A105_09233T0	Z519_05343T0	94.48	290	16	0	1	290	1	290	0	549
1	A105_09697T0	Z519_10510T0	94.48	978	54	0	1	978	1	978	0	1840
39	A105_10177T0	Z519_12676T0	94.48	652	35	1	2	652	120	771	0	1280
1	A105_11140T0	Z519_08935T0	94.48	634	15	1	1	614	1	634	0	1209
1	A105_01163T0	Z519_08431T0	94.49	363	20	0	1	363	1	363	0	669
6	A105_02042T0	Z519_01414T0	94.49	1562	86	0	1	1562	1	1562	0	3074
90	A105_02209T0	Z519_11766T0	94.49	526	12	1	1	509	1	526	0	1009
88	A105_02710T0	Z519_07247T0	94.49	508	28	0	1	508	1	508	0	981
1	A105_02759T0	Z519_07291T0	94.49	363	20	0	3	365	1	363	0	634
23	A105_03220T0	Z519_10070T0	94.49	472	26	0	1	472	1	472	0	899
1	A105_05460T0	Z519_08337T0	94.49	798	44	0	12	809	12	809	0	1442
15	A105_06435T0	Z519_10606T0	94.49	381	17	2	1	381	1	377	0	732
1	A105_07545T0	Z519_06108T0	94.49	490	25	1	1	488	1	490	0	904
45	A105_11144T0	Z519_08931T0	94.49	762	40	1	18	779	18	777	0	1497
4	A105_12227T0	Z519_04526T0	94.49	454	25	0	1	454	1	454	0	892
1	A105_02402T0	Z519_06930T0	94.5	109	6	0	1	109	1	109	2.00E-72	213

18	A105_03028T0	Z519_12007T0	94.5	527	29	0	1	527	1	527	0	961
1	A105_03896T0	Z519_03211T0	94.5	418	23	0	1	418	1	418	0	790
17	A105_04425T0	Z519_02257T0	94.5	327	18	0	1	327	1	327	0	637
3	A105_04722T0	Z519_02552T0	94.5	691	37	1	1	690	1	691	0	1348
1	A105_05163T0	Z519_08052T0	94.5	382	20	1	1	382	1	381	0	699
4	A105_07618T0	Z519_06181T0	94.5	291	16	0	1	291	1	291	0	577
4	A105_08623T0	Z519_04027T0	94.5	218	10	1	1	218	1	216	7.00E-151	421
4	A105_10721T0	Z519_09909T0	94.5	218	12	0	1	218	1	218	4.00E-156	434
1	A105_11968T0	Z519_05764T0	94.5	636	35	0	1	636	1	636	0	1170
29	A105_13091T0	Z519_11222T0	94.5	527	29	0	1	527	1	527	0	1016
2	A105_13122T0	Z519_11248T0	94.5	109	6	0	1	109	1	109	9.00E-73	214
11	A105_13303T0	Z519_05030T0	94.5	854	27	1	1	834	1	854	0	1664
1	A105_00468T0	Z519_00475T0	94.51	237	13	0	1	237	1	237	2.00E-163	454
1	A105_01209T0	Z519_08476T0	94.51	255	14	0	1	255	78	332	3.00E-174	486
1	A105_01810T0	Z519_01654T0	94.51	948	52	0	1	948	5	952	0	1595
102	A105_03205T0	Z519_10055T0	94.51	546	30	0	1	546	1	546	0	1087
5	A105_10062T0	Z519_04109T0	94.51	874	46	1	1	874	1	872	0	1690
1	A105_10301T0	Z519_10966T0	94.51	91	5	0	1	91	1	91	6.00E-59	178
12	A105_10677T0	Z519_09864T0	94.51	510	26	1	1	510	1	508	0	964
10	A105_12535T0	Z519_02866T0	94.51	437	22	1	1	437	1	435	0	848
22	A105_12944T0	Z519_11083T0	94.51	273	15	0	1	273	42	314	0	536
1	A105_12967T0	Z519_04385T0	94.51	164	9	0	1	164	1	164	6.00E-113	320
2	A105_00066T0	Z519_00065T0	94.52	693	38	0	1	693	1	693	0	1372
5	A105_00126T0	Z519_00127T0	94.52	292	16	0	1	292	1	292	0	565
1	A105_03648T0	Z519_09777T0	94.52	146	8	0	23	168	1	146	1.00E-101	291
6	A105_04113T0	Z519_03386T0	94.52	511	28	0	16	526	1	511	0	979
1	A105_04508T0	Z519_02336T0	94.52	219	12	0	1	219	1	219	5.00E-147	412
1	A105_08172T0	Z519_09396T0	94.52	347	18	1	1	346	53	399	0	667
2	A105_08265T0	Z519_09487T0	94.52	767	18	1	1	767	1	743	0	1439
62	A105_12309T0	Z519_12396T0	94.52	547	30	0	1	547	1	547	0	1075
14	A105_00976T0	Z519_00913T0	94.53	329	18	0	1	329	1	329	0	655
1	A105_02214T0	Z519_11760T0	94.53	439	24	0	1	439	1	439	0	827
2	A105_02397T0	Z519_06926T0	94.53	548	30	0	1	548	1	548	0	1051
4	A105_04740T0	Z519_02569T0	94.53	274	15	0	1	274	1	274	0	527
20	A105_05588T0	Z519_03700T0	94.53	987	51	1	1	984	1	987	0	1913

13	A105_05958T0	Z519_04777T0	94.53	256	14	0	1	256	1	256	4.00E-177	491
1	A105_06700T0	Z519_08969T0	94.53	201	1	1	30	220	25	225	1.00E-121	347
152	A105_08070T0	Z519_04330T0	94.53	274	7	1	1	266	1	274	0	527
64	A105_08602T0	Z519_04047T0	94.53	603	33	0	1	603	1	603	0	1105
1	A105_09164T0	Z519_05275T0	94.53	512	10	1	1	494	1	512	0	880
18	A105_09629T0	Z519_10576T0	94.53	1370	73	2	1	1369	1	1369	0	2644
13	A105_11903T0	Z519_02006T0	94.53	677	37	0	1	677	1	677	0	1274
5	A105_12592T0	Z519_05451T0	94.53	1738	95	0	1	1738	1	1738	0	3309
58	A105_12923T0	Z519_11061T0	94.53	329	18	0	1	329	1	329	0	623
1	A105_00200T0	Z519_00202T0	94.54	366	20	0	1	366	1	366	0	721
2	A105_00444T0	Z519_00451T0	94.54	348	19	0	1	348	354	701	0	688
101	A105_01601T0	Z519_01815T0	94.54	659	36	0	1	659	1	659	0	1305
13	A105_04112T0	Z519_03385T0	94.54	348	19	0	1	348	1	348	0	677
4	A105_04455T0	Z519_02287T0	94.54	476	24	1	1	474	1	476	0	889
37	A105_05682T0	Z519_11167T0	94.54	623	32	1	1	623	1	621	0	1213
1	A105_06119T0	Z519_04617T0	94.54	183	10	0	1	183	1	183	1.00E-109	327
1	A105_07170T0	Z519_06332T0	94.54	659	36	0	1	659	734	1392	0	1270
7	A105_09371T0	Z519_01198T0	94.54	623	3	2	1	592	1	623	0	1157
1	A105_10016T0	Z519_04154T0	94.54	238	13	0	1	238	1	238	5.00E-165	459
16	A105_10392T0	Z519_11268T0	94.54	366	5	1	1	351	1	366	0	644
9	A105_13146T0	Z519_04377T0	94.54	751	41	0	1	751	1	751	0	1490
3	A105_02959T0	Z519_12069T0	94.55	220	12	0	1	220	135	354	2.00E-155	438
1	A105_03195T0	Z519_10046T0	94.55	2020	109	1	1	2020	1	2019	0	3898
154	A105_03349T0	Z519_10173T0	94.55	514	28	0	1	514	1	514	0	1013
1	A105_04262T0	Z519_03540T0	94.55	110	6	0	1	110	118	227	4.00E-56	176
3	A105_04911T0	Z519_02738T0	94.55	220	12	0	1	220	1	220	6.00E-151	421
5	A105_05471T0	Z519_08347T0	94.55	404	22	0	1	404	1	404	0	752
1	A105_07093T0	Z519_06406T0	94.55	532	29	0	1	532	1	532	0	985
3	A105_09639T0	Z519_10565T0	94.55	220	12	0	12	231	12	231	1.00E-154	432
1	A105_10579T0	Z519_12566T0	94.55	330	18	0	9	338	1	330	0	646
2	A105_10664T0	Z519_09851T0	94.55	330	18	0	1	330	216	545	0	667
1	A105_00204T0	Z519_00206T0	94.56	643	31	2	3	642	5	646	0	1197
1	A105_00950T0	Z519_00884T0	94.56	423	21	1	1	421	1	423	0	808
2	A105_01211T0	Z519_08478T0	94.56	423	23	0	1	423	1	423	0	757
1	A105_01309T0	Z519_08573T0	94.56	1801	91	1	1	1801	1	1794	0	3434

1	A105_01316T0	Z519_08580T0	94.56	386	20	1	1	386	1	385	0	664
1	A105_02600T0	Z519_07129T0	94.56	386	21	0	1	386	1	386	0	766
1	A105_05515T0	Z519_03629T0	94.56	515	28	0	1	515	1	515	0	903
3	A105_05732T0	Z519_11116T0	94.56	239	13	0	1	239	1	239	8.00E-169	468
1	A105_07587T0	Z519_06150T0	94.56	331	18	0	1	331	1	331	0	642
1	A105_07859T0	Z519_07688T0	94.56	1471	80	0	1	1471	42	1512	0	2793
1	A105_08863T0	Z519_03790T0	94.56	515	27	1	1	515	1	514	0	979
1	A105_11261T0	Z519_08816T0	94.56	239	13	0	1	239	1	239	3.00E-165	459
2	A105_00093T0	Z519_00092T0	94.57	442	24	0	1	442	1	442	0	789
3	A105_01537T0	Z519_01883T0	94.57	1198	65	0	1	1198	1	1198	0	2374
30	A105_01546T0	Z519_01873T0	94.57	589	32	0	3	591	2	590	0	1161
2	A105_03796T0	Z519_03117T0	94.57	736	40	0	1	736	1	736	0	1373
15	A105_03917T0	Z519_03232T0	94.57	442	24	0	1	442	1	442	0	862
8	A105_05750T0	Z519_04987T0	94.57	516	28	0	1	516	1	516	0	1007
2	A105_06958T0	Z519_06538T0	94.57	313	17	0	1	313	1	313	0	564
1	A105_11345T0	Z519_02114T0	94.57	313	17	0	1	313	1	313	0	556
2	A105_00180T0	Z519_00182T0	94.58	203	11	0	1	203	1	203	1.00E-136	384
1	A105_01383T0	Z519_11886T0	94.58	406	22	0	1	406	1	406	0	802
51	A105_02266T0	Z519_11711T0	94.58	295	16	0	1	295	1	295	0	570
30	A105_03272T0	Z519_10121T0	94.58	609	33	0	1	609	3	611	0	1192
5	A105_03704T0	Z519_03023T0	94.58	277	15	0	1	277	1	277	0	546
1	A105_04614T0	Z519_02441T0	94.58	443	24	0	1	443	48	490	0	847
2	A105_04967T0	Z519_02791T0	94.58	443	24	0	1	443	1	443	0	840
1	A105_06223T0	Z519_10788T0	94.58	830	45	0	1	830	1	830	0	1639
1	A105_07234T0	Z519_05811T0	94.58	295	16	0	1	295	1	295	0	583
22	A105_08301T0	Z519_09517T0	94.58	757	41	0	1	757	1	757	0	1441
6	A105_11604T0	Z519_08690T0	94.58	240	13	0	49	288	1	240	2.00E-157	441
25	A105_11656T0	Z519_08643T0	94.58	1568	85	0	1	1568	31	1598	0	3069
1	A105_01120T0	Z519_08394T0	94.59	111	6	0	1	111	1	111	5.00E-71	219
23	A105_01168T0	Z519_08436T0	94.59	1090	59	0	2	1091	7	1096	0	2088
1	A105_02366T0	Z519_11606T0	94.59	388	20	1	1	388	1	387	0	685
8	A105_02791T0	Z519_07323T0	94.59	296	16	0	1	296	1	296	0	577
1	A105_03446T0	Z519_10268T0	94.59	259	14	0	1	259	1	259	0	508
2	A105_03755T0	Z519_03079T0	94.59	333	18	0	1	333	1	333	0	654
4	A105_04188T0	Z519_03467T0	94.59	444	24	0	1	444	1	444	0	885

1	A105_05053T0	Z519_07944T0	94.59	185	10	0	1	185	1	185	4.00E-130	366
3	A105_06085T0	Z519_04657T0	94.59	185	10	0	114	298	25	209	7.00E-121	348
23	A105_06503T0	Z519_09162T0	94.59	444	24	0	1	444	1	444	0	876
3	A105_09811T0	Z519_10409T0	94.59	942	48	1	1	939	1	942	0	1866
20	A105_10001T0	Z519_04167T0	94.59	351	19	0	1	351	1	351	0	680
10	A105_11007T0	Z519_06805T0	94.59	351	19	0	2	352	3	353	0	681
10	A105_11601T0	Z519_08693T0	94.59	296	16	0	1	296	1	296	0	576
1	A105_12820T0	Z519_12538T0	94.59	148	8	0	1	148	1	148	3.00E-99	285
105	A105_01914T0	Z519_01547T0	94.6	556	30	0	1	556	1	556	0	1098
1	A105_04399T0	Z519_02230T0	94.6	907	48	1	1	907	1	906	0	1654
1	A105_04893T0	Z519_02717T0	94.6	426	23	0	1	426	1	426	0	808
1	A105_00726T0	Z519_00718T0	94.61	445	24	0	1	445	1	445	0	872
5	A105_01802T0	Z519_01662T0	94.61	649	14	1	1	628	127	775	0	1212
1	A105_03382T0	Z519_10203T0	94.61	705	38	0	1	705	1	705	0	1374
1	A105_03451T0	Z519_10273T0	94.61	724	39	0	7	730	17	740	0	1370
1	A105_07589T0	Z519_06152T0	94.61	167	9	0	1	167	1	167	2.00E-115	327
1	A105_10067T0	Z519_04104T0	94.61	334	18	0	1	334	1	334	0	608
22	A105_10787T0	Z519_12279T0	94.61	371	20	0	1	371	1	371	0	725
4	A105_00349T0	Z519_00348T0	94.62	539	29	0	1	539	1	539	0	1031
4	A105_07002T0	Z519_06498T0	94.62	483	26	0	1	483	1	483	0	914
1	A105_07681T0	Z519_07504T0	94.62	186	10	0	1	186	7	192	2.00E-105	303
1	A105_07928T0	Z519_07766T0	94.62	502	24	1	1	502	1	499	0	912
3	A105_08508T0	Z519_05543T0	94.62	223	12	0	1	223	1	223	3.00E-159	443
2	A105_08709T0	Z519_03950T0	94.62	780	41	1	1	780	1	779	0	1524
3	A105_09703T0	Z519_10504T0	94.62	465	25	0	1	465	1	465	0	901
3	A105_09797T0	Z519_10423T0	94.62	1059	51	1	1	1059	1	1053	0	1843
1	A105_11665T0	Z519_08631T0	94.62	372	20	0	1	372	1	372	0	687
1	A105_12858T0	Z519_07461T0	94.62	279	15	0	1	279	111	389	0	543
1	A105_00705T0	Z519_00699T0	94.63	298	16	0	1	298	4	301	0	555
11	A105_01737T0	Z519_01701T0	94.63	1340	72	0	1	1340	1	1340	0	2568
8	A105_02412T0	Z519_06940T0	94.63	521	28	0	1	521	1	521	0	1028
1	A105_02878T0	Z519_07409T0	94.63	428	23	0	1	428	1	428	0	758
3	A105_05606T0	Z519_03714T0	94.63	410	22	0	1	410	1	410	0	804
12	A105_07935T0	Z519_07770T0	94.63	410	22	0	1	410	1	410	0	780
1	A105_08307T0	Z519_09523T0	94.63	354	19	0	1	354	213	566	0	608

1	A105_08953T0	Z519_05056T0	94.63	298	16	0	1	298	1	298	0	573
1	A105_11207T0	Z519_08876T0	94.63	1378	70	2	1	1378	1	1374	0	2635
6	A105_11687T0	Z519_08608T0	94.63	149	8	0	1	149	1	149	6.00E-102	292
1	A105_11949T0	Z519_05784T0	94.63	410	22	0	1	410	24	433	0	753
1	A105_00319T0	Z519_00328T0	94.64	522	27	1	1	522	725	1245	0	979
4	A105_03470T0	Z519_09595T0	94.64	336	18	0	50	385	11	346	0	654
5	A105_04004T0	Z519_03301T0	94.64	168	9	0	1	168	80	247	9.00E-113	330
3	A105_04810T0	Z519_02635T0	94.64	1585	85	0	1	1585	1	1585	0	2944
1	A105_04836T0	Z519_02661T0	94.64	373	20	0	33	405	245	617	0	727
3	A105_07349T0	Z519_05922T0	94.64	634	14	2	1	614	1	634	0	1194
17	A105_07515T0	Z519_06081T0	94.64	261	14	0	1	261	1	261	0	516
5	A105_11801T0	Z519_02883T0	94.64	504	27	0	17	520	17	520	0	993
1	A105_13133T0	Z519_11259T0	94.64	224	12	0	1	224	1	224	1.00E-156	436
1	A105_01231T0	Z519_08498T0	94.65	1159	62	0	1	1159	1	1159	0	2194
10	A105_02338T0	Z519_11636T0	94.65	449	24	0	10	458	7	455	0	859
1	A105_02783T0	Z519_07315T0	94.65	673	24	2	127	799	2	662	0	1181
13	A105_03148T0	Z519_10001T0	94.65	523	28	0	1	523	1	523	0	1014
67	A105_03268T0	Z519_10117T0	94.65	1309	44	2	1	1283	1	1309	0	2457
4	A105_03347T0	Z519_10171T0	94.65	430	23	0	1	430	1	430	0	816
4	A105_06232T0	Z519_10779T0	94.65	710	37	1	1	709	1	710	0	1393
1	A105_06586T0	Z519_09078T0	94.65	318	15	1	1	318	1	316	0	613
2	A105_06613T0	Z519_09052T0	94.65	299	16	0	27	325	167	465	0	561
105	A105_06888T0	Z519_06611T0	94.65	542	29	0	1	542	1	542	0	1078
1	A105_07187T0	Z519_06313T0	94.65	822	44	0	1	822	1	822	0	1571
1	A105_09166T0	Z519_05277T0	94.65	355	18	1	4	358	2	355	0	680
2	A105_10139T0	Z519_04290T0	94.65	318	15	1	1	318	1	316	0	608
1	A105_13438T0	Z519_12193T0	94.65	579	31	0	1	579	120	698	0	1125
55	A105_00434T0	Z519_00440T0	94.66	468	25	0	1	468	1	468	0	893
1	A105_00511T0	Z519_00519T0	94.66	1666	89	0	1	1666	1	1666	0	3212
45	A105_01176T0	Z519_08443T0	94.66	599	32	0	1	599	1	599	0	1177
5	A105_04424T0	Z519_02256T0	94.66	580	31	0	1	580	1	580	0	1096
1	A105_04545T0	Z519_02372T0	94.66	1893	93	2	1	1889	1	1889	0	3381
1	A105_04933T0	Z519_02757T0	94.66	337	18	0	1	337	1	337	0	656
72	A105_05550T0	Z519_03665T0	94.66	524	27	1	1	524	1	523	0	975
41	A105_06552T0	Z519_09113T0	94.66	955	47	2	1	952	1	954	0	1836

1	A105_06759T0	Z519_06747T0	94.66	337	18	0	1	337	1	337	0	637
49	A105_07230T0	Z519_05807T0	94.66	393	19	1	1	393	1	391	0	734
1	A105_08225T0	Z519_09447T0	94.66	937	41	3	1	936	1	929	0	1466
7	A105_09802T0	Z519_10418T0	94.66	431	23	0	1	431	1	431	0	845
1	A105_10613T0	Z519_11104T0	94.66	206	11	0	1	206	1	206	3.00E-143	401
1	A105_10883T0	Z519_11422T0	94.66	637	33	1	1	636	1	637	0	1247
117	A105_11750T0	Z519_02930T0	94.66	281	15	0	1	281	1	281	0	554
1	A105_13238T0	Z519_12524T0	94.66	412	22	0	1	412	1	412	0	765
128	A105_00003T0	Z519_00003T0	94.67	525	28	0	1	525	1	525	0	995
41	A105_01401T0	Z519_11866T0	94.67	1200	34	3	1	1195	1	1175	0	2298
15	A105_03739T0	Z519_03059T0	94.67	1687	90	0	1	1687	1	1687	0	3290
1	A105_06034T0	Z519_04704T0	94.67	469	24	1	1	469	1	468	0	847
1	A105_06296T0	Z519_10726T0	94.67	600	32	0	1	600	1	600	0	1129
80	A105_07039T0	Z519_06463T0	94.67	750	34	2	1	749	1	745	0	1470
1	A105_07959T0	Z519_07800T0	94.67	75	4	0	1	75	1	75	1.00E-45	142
5	A105_08883T0	Z519_03770T0	94.67	394	21	0	1	394	1	394	0	771
16	A105_11174T0	Z519_08904T0	94.67	300	16	0	1	300	1	300	0	600
25	A105_12464T0	Z519_12650T0	94.67	450	24	0	38	487	4	453	0	831
1	A105_12483T0	Z519_02817T0	94.67	169	9	0	1	169	1	169	6.00E-113	321
5	A105_12485T0	Z519_02819T0	94.67	225	12	0	1	225	1	225	2.00E-156	436
98	A105_02147T0	Z519_01331T0	94.68	263	14	0	1	263	42	304	2.00E-179	520
1	A105_02401T0	Z519_06929T0	94.68	357	19	0	3	359	4	360	0	657
139	A105_04235T0	Z519_03514T0	94.68	564	20	1	1	564	1	554	0	1099
1	A105_05081T0	Z519_07971T0	94.68	432	23	0	1	432	4	435	0	855
1	A105_07006T0	Z519_06494T0	94.68	432	23	0	1	432	1	432	0	801
7	A105_07710T0	Z519_07533T0	94.68	583	31	0	1	583	1	583	0	1067
87	A105_08634T0	Z519_04024T0	94.68	489	26	0	6	494	1	489	0	928
1	A105_08912T0	Z519_03741T0	94.68	94	5	0	100	193	1	94	5.00E-58	179
1	A105_08923T0	Z519_03728T0	94.68	188	10	0	27	214	41	228	3.00E-117	336
106	A105_11021T0	Z519_06820T0	94.68	583	30	1	1	583	1	582	0	1153
1	A105_12187T0	Z519_04562T0	94.68	470	25	0	1	470	1	470	0	901
92	A105_05399T0	Z519_08273T0	94.69	226	12	0	1	226	1	226	3.00E-158	443
6	A105_05710T0	Z519_11140T0	94.69	546	29	0	1	546	1	546	0	1081
25	A105_08185T0	Z519_09408T0	94.69	546	29	0	1	546	1	546	0	981
1	A105_08866T0	Z519_03787T0	94.69	735	39	0	1	735	1	735	0	1407

1	A105_09474T0	Z519_01112T0	94.69	621	31	1	1	619	1	621	0	1162
15	A105_11327T0	Z519_02132T0	94.69	358	19	0	1	358	1	358	0	679
4	A105_11916T0	Z519_02018T0	94.69	226	12	0	1	226	1	226	6.00E-146	409
1	A105_12225T0	Z519_04528T0	94.69	1054	53	2	1	1051	1	1054	0	2011
2	A105_12362T0	Z519_12446T0	94.69	245	13	0	1	245	1	245	1.00E-179	496
17	A105_12818T0	Z519_12536T0	94.69	320	17	0	1	320	1	320	0	624
7	A105_04191T0	Z519_03470T0	94.7	283	15	0	1	283	1	283	0	536
50	A105_05686T0	Z519_11163T0	94.7	604	32	0	1	604	9	612	0	1184
1	A105_06766T0	Z519_06734T0	94.7	264	14	0	1	264	1	264	4.00E-155	436
147	A105_06770T0	Z519_06730T0	94.7	547	29	0	1	547	1	547	0	1048
110	A105_08577T0	Z519_03289T0	94.7	528	28	0	1	528	1	528	0	1021
37	A105_08908T0	Z519_03744T0	94.7	717	38	0	1	717	35	751	0	1404
16	A105_09628T0	Z519_10577T0	94.7	302	16	0	1	302	1	302	0	581
15	A105_10987T0	Z519_11521T0	94.7	321	14	1	1	318	1	321	0	582
1	A105_11765T0	Z519_02915T0	94.7	547	19	1	42	588	43	579	0	1045
1	A105_12011T0	Z519_05719T0	94.7	302	14	1	1	302	1	300	4.00E-159	449
4	A105_00443T0	Z519_00450T0	94.71	1039	51	2	1	1035	1	1039	0	1877
12	A105_00900T0	Z519_00849T0	94.71	473	25	0	1	473	1	473	0	862
3	A105_01333T0	Z519_11931T0	94.71	189	10	0	1	189	45	233	1.00E-133	377
1	A105_01935T0	Z519_01525T0	94.71	208	11	0	1	208	1	208	2.00E-145	407
14	A105_02197T0	Z519_01003T0	94.71	227	12	0	1	227	1	227	4.00E-155	440
1	A105_02462T0	Z519_06994T0	94.71	416	21	1	1	415	1	416	0	806
1	A105_03455T0	Z519_10277T0	94.71	435	23	0	1	435	1	435	0	845
1	A105_04392T0	Z519_02223T0	94.71	907	46	1	1	907	1	905	0	1769
1	A105_05013T0	Z519_12216T0	94.71	170	9	0	1	170	1	170	3.00E-106	304
1	A105_05656T0	Z519_11193T0	94.71	756	39	1	12	767	92	846	0	1338
37	A105_06911T0	Z519_06588T0	94.71	662	35	0	1	662	1	662	0	1264
1	A105_07503T0	Z519_06069T0	94.71	473	25	0	1	473	223	695	0	870
1	A105_07712T0	Z519_07535T0	94.71	624	24	1	1	615	40	663	0	1093
1	A105_08005T0	Z519_07841T0	94.71	473	25	0	1	473	1	473	0	923
1	A105_09670T0	Z519_10536T0	94.71	227	12	0	1	227	1	227	4.00E-137	387
2	A105_10245T0	Z519_10910T0	94.71	227	12	0	1	227	1	227	4.00E-160	445
1	A105_10309T0	Z519_10974T0	94.71	378	20	0	1	378	1	378	0	675
95	A105_11797T0	Z519_02886T0	94.71	170	9	0	1	170	59	228	8.00E-111	330
1	A105_12060T0	Z519_12320T0	94.71	189	10	0	1	189	1	189	4.00E-121	343

1	A105_12272T0	Z519_04482T0	94.71	454	24	0	1	454	1	454	0	799
1	A105_01407T0	Z519_11860T0	94.72	1744	88	2	1	1744	1	1740	0	3317
4	A105_02321T0	Z519_11654T0	94.72	1763	91	2	1	1763	1	1761	0	3273
39	A105_04861T0	Z519_02685T0	94.72	606	11	1	1	585	1	606	0	1150
1	A105_07814T0	Z519_07629T0	94.72	511	27	0	1	511	1	511	0	986
1	A105_11020T0	Z519_06819T0	94.72	663	33	2	1	662	1	662	0	1223
114	A105_11131T0	Z519_08944T0	94.72	284	15	0	1	284	1	284	0	551
1	A105_11787T0	Z519_02894T0	94.72	417	22	0	1	417	1	417	0	808
1	A105_12031T0	Z519_05698T0	94.72	246	13	0	1	246	23	268	1.00E-177	493
1	A105_12206T0	Z519_04545T0	94.72	322	17	0	1	322	1	322	0	629
1	A105_12447T0	Z519_12664T0	94.72	246	13	0	1	246	1	246	6.00E-166	462
1	A105_01676T0	Z519_01740T0	94.73	607	32	0	1	607	1	607	0	1172
5	A105_02455T0	Z519_06987T0	94.73	569	29	1	1	568	168	736	0	1105
81	A105_03217T0	Z519_10067T0	94.73	740	39	0	1	740	1	740	0	1444
4	A105_03769T0	Z519_03091T0	94.73	569	29	1	1	568	5	573	0	1083
1	A105_05111T0	Z519_08001T0	94.73	607	32	0	1	607	1	607	0	1194
2	A105_05127T0	Z519_08016T0	94.73	664	35	0	1	664	1	664	0	1271
2	A105_07387T0	Z519_05960T0	94.73	1840	96	1	1	1840	1	1839	0	3580
2	A105_09290T0	Z519_01275T0	94.73	797	42	0	1	797	1	797	0	1565
2	A105_10198T0	Z519_10864T0	94.73	645	34	0	1	645	1	645	0	1097
4	A105_10329T0	Z519_10995T0	94.73	455	24	0	1	455	1	455	0	899
156	A105_13355T0	Z519_09305T0	94.73	474	16	1	1	474	1	465	0	922
1	A105_01002T0	Z519_00928T0	94.74	228	12	0	1	228	1	228	4.00E-157	438
9	A105_01245T0	Z519_08511T0	94.74	323	17	0	1	323	1	323	0	632
122	A105_01695T0	Z519_01725T0	94.74	456	24	0	1	456	90	545	0	907
1	A105_02819T0	Z519_07349T0	94.74	323	17	0	1	323	1	323	0	545
3	A105_03186T0	Z519_10037T0	94.74	570	30	0	1	570	1	570	0	1110
1	A105_06093T0	Z519_04650T0	94.74	247	13	0	53	299	493	739	5.00E-160	467
1	A105_07831T0	Z519_07646T0	94.74	152	6	2	1	151	1	151	8.00E-75	224
4	A105_12865T0	Z519_07467T0	94.74	152	6	1	1	152	1	150	6.00E-100	301
4	A105_12929T0	Z519_11067T0	94.74	95	5	0	28	122	54	148	5.00E-56	176
1	A105_00698T0	Z519_00692T0	94.75	876	46	0	1	876	1	876	0	1701
62	A105_01563T0	Z519_01858T0	94.75	571	30	0	1	571	1	571	0	1139
1	A105_02906T0	Z519_12771T0	94.75	476	25	0	1	476	1	476	0	914
34	A105_03450T0	Z519_10272T0	94.75	324	17	0	1	324	1	324	0	642

1	A105_04686T0	Z519_02516T0	94.75	571	27	1	1	571	1	568	0	1031
6	A105_05544T0	Z519_03662T0	94.75	419	22	0	1	419	57	475	0	790
1	A105_09150T0	Z519_05260T0	94.75	419	22	0	1	419	1	419	0	803
8	A105_09296T0	Z519_01269T0	94.75	629	15	1	1	629	1	611	0	1226
4	A105_09308T0	Z519_01258T0	94.75	305	7	1	1	305	30	325	0	586
100	A105_11817T0	Z519_02872T0	94.75	609	32	0	1	609	1	609	0	1228
2	A105_00769T0	Z519_00763T0	94.76	573	30	0	1	573	1	573	0	1122
1	A105_00962T0	Z519_00896T0	94.76	210	11	0	1	210	1	210	1.00E-137	387
1	A105_02798T0	Z519_07330T0	94.76	1050	55	0	1	1050	1	1050	0	2005
1	A105_02901T0	Z519_12776T0	94.76	649	34	0	1	649	1	649	0	1092
1	A105_03131T0	Z519_09984T0	94.76	668	35	0	14	681	6	673	0	1261
1	A105_03457T0	Z519_10280T0	94.76	267	14	0	1	267	1	267	6.00E-176	490
1	A105_06168T0	Z519_04572T0	94.76	229	11	1	1	229	1	228	6.00E-160	445
1	A105_08506T0	Z519_05545T0	94.76	477	25	0	1	477	1	477	0	910
33	A105_08878T0	Z519_03775T0	94.76	725	34	2	16	739	26	747	0	1300
4	A105_09482T0	Z519_01101T0	94.76	458	23	1	1	457	1	458	0	874
1	A105_09543T0	Z519_01054T0	94.76	1107	56	1	1	1107	1	1105	0	2015
4	A105_10190T0	Z519_10855T0	94.76	515	26	1	1	514	1	515	0	984
1	A105_11529T0	Z519_11570T0	94.76	420	21	1	1	419	148	567	0	800
1	A105_12353T0	Z519_12438T0	94.76	420	22	0	1	420	1	420	0	800
1	A105_00901T0	Z519_00850T0	94.77	172	9	0	1	172	1	172	1.00E-105	303
1	A105_03343T0	Z519_10167T0	94.77	516	25	1	1	514	1	516	0	978
16	A105_06463T0	Z519_09197T0	94.77	325	17	0	1	325	72	396	0	629
1	A105_08798T0	Z519_03856T0	94.77	2239	110	3	1	2239	1	2232	0	4140
1	A105_11932T0	Z519_02032T0	94.77	325	17	0	1	325	1	325	0	611
1	A105_12185T0	Z519_04564T0	94.77	708	37	0	1	708	1	708	0	1316
1	A105_12222T0	Z519_04531T0	94.77	344	18	0	1	344	1	344	0	687
2	A105_12339T0	Z519_12425T0	94.77	287	5	1	1	277	83	369	0	554
4	A105_12345T0	Z519_12431T0	94.77	1071	54	2	1	1070	1	1070	0	1898
3	A105_12935T0	Z519_11074T0	94.77	516	21	1	1	516	1	510	0	897
3	A105_00944T0	Z519_00877T0	94.78	364	19	0	1	364	1	364	0	710
1	A105_01621T0	Z519_01796T0	94.78	115	6	0	1	115	1	115	9.00E-73	214
40	A105_02730T0	Z519_07264T0	94.78	345	18	0	1	345	1	345	0	657
1	A105_03654T0	Z519_09782T0	94.78	230	10	1	1	228	1	230	3.00E-122	349
1	A105_04055T0	Z519_03332T0	94.78	230	11	1	1	230	1	229	5.00E-147	412

1	A105_04396T0	Z519_02227T0	94.78	134	7	0	1	134	1	134	2.00E-79	233
12	A105_04498T0	Z519_02325T0	94.78	345	18	0	1	345	1	345	0	674
9	A105_05236T0	Z519_08109T0	94.78	709	33	1	1	705	1	709	0	1370
4	A105_05373T0	Z519_08246T0	94.78	556	29	0	1	556	1	556	0	1097
4	A105_05396T0	Z519_08270T0	94.78	594	31	0	1	594	1	594	0	1125
27	A105_06113T0	Z519_04625T0	94.78	709	14	2	1	706	1	689	0	1349
2	A105_08160T0	Z519_09384T0	94.78	345	18	0	1	345	1	345	0	634
90	A105_10233T0	Z519_10899T0	94.78	498	12	1	1	484	1	498	0	957
1	A105_11177T0	Z519_08901T0	94.78	785	41	0	1	785	1	785	0	1509
1	A105_12243T0	Z519_04509T0	94.78	230	12	0	1	230	19	248	3.00E-162	452
8	A105_12471T0	Z519_12647T0	94.78	364	19	0	1	364	1	364	0	684
14	A105_13284T0	Z519_12149T0	94.78	1264	64	1	1	1264	1	1262	0	2417
16	A105_00128T0	Z519_00129T0	94.79	403	21	0	1	403	1	403	0	798
3	A105_00678T0	Z519_00673T0	94.79	691	36	0	1	691	1	691	0	1300
6	A105_02255T0	Z519_11724T0	94.79	288	15	0	149	436	1	288	0	543
1	A105_02501T0	Z519_07035T0	94.79	422	18	2	11	430	1	420	0	750
3	A105_03228T0	Z519_10078T0	94.79	307	16	0	17	323	1	307	0	603
5	A105_03500T0	Z519_09624T0	94.79	634	33	0	1	634	4	637	0	1243
150	A105_04324T0	Z519_03601T0	94.79	518	27	0	1	518	1	518	0	1028
9	A105_06108T0	Z519_04629T0	94.79	518	23	1	1	514	1	518	0	994
38	A105_06430T0	Z519_10611T0	94.79	326	17	0	39	364	5	330	0	645
3	A105_07705T0	Z519_07528T0	94.79	288	15	0	1	288	1	288	0	551
1	A105_07764T0	Z519_07577T0	94.79	518	27	0	1	518	1	518	0	951
18	A105_09280T0	Z519_01286T0	94.79	422	22	0	1	422	135	556	0	831
4	A105_09573T0	Z519_01023T0	94.79	863	45	0	1	863	1	863	0	1711
3	A105_10958T0	Z519_11495T0	94.79	384	10	1	1	374	1	384	0	744
5	A105_00464T0	Z519_00471T0	94.8	250	12	1	9	257	1	250	1.00E-175	488
2	A105_00716T0	Z519_00709T0	94.8	596	31	0	1	596	1	596	0	1100
1	A105_03026T0	Z519_12009T0	94.8	346	18	0	1	346	1	346	0	660
4	A105_03458T0	Z519_10281T0	94.8	789	37	2	1	789	77	861	0	1513
31	A105_04387T0	Z519_02214T0	94.8	346	18	0	1	346	1	346	0	654
50	A105_06550T0	Z519_09115T0	94.8	769	40	0	1	769	1	769	0	1523
3	A105_07797T0	Z519_07612T0	94.8	538	18	1	1	538	1	528	0	1038
2	A105_08748T0	Z519_03910T0	94.8	596	31	0	1	596	1	596	0	1180
1	A105_01750T0	Z519_01688T0	94.81	212	11	0	1	212	1	212	9.00E-154	429

1	A105_02033T0	Z519_01423T0	94.81	77	4	0	1	77	1	77	5.00E-49	152
5	A105_02188T0	Z519_01290T0	94.81	289	15	0	1	289	1	289	0	549
20	A105_02612T0	Z519_07140T0	94.81	1232	64	0	1	1232	1	1232	0	2359
11	A105_02613T0	Z519_07141T0	94.81	790	40	1	17	805	15	804	0	1488
4	A105_03178T0	Z519_10027T0	94.81	655	32	1	1	653	1	655	0	1272
1	A105_05115T0	Z519_08004T0	94.81	270	14	0	1	270	1	270	0	533
1	A105_06003T0	Z519_04733T0	94.81	1060	54	1	1	1060	1	1059	0	1943
70	A105_06507T0	Z519_09158T0	94.81	597	31	0	1	597	1	597	0	1145
1	A105_07199T0	Z519_06301T0	94.81	675	35	0	1	675	1	675	0	1249
10	A105_07813T0	Z519_07628T0	94.81	540	28	0	1	540	2	541	0	1018
162	A105_08528T0	Z519_05524T0	94.81	520	7	1	1	500	1	520	0	969
18	A105_08772T0	Z519_03884T0	94.81	867	31	2	1	867	1	853	0	1714
32	A105_08823T0	Z519_03831T0	94.81	540	28	0	1	540	1	540	0	1043
36	A105_09684T0	Z519_10523T0	94.81	1485	77	0	1	1485	1	1485	0	2934
5	A105_09766T0	Z519_10456T0	94.81	366	19	0	1	366	1	366	0	717
1	A105_09812T0	Z519_10408T0	94.81	135	7	0	1	135	1	135	2.00E-81	238
2	A105_11865T0	Z519_01969T0	94.81	1946	97	2	1	1942	1	1946	0	3724
79	A105_12512T0	Z519_02845T0	94.81	539	27	1	1	538	1	539	0	1039
2	A105_00451T0	Z519_00458T0	94.82	541	28	0	1	541	202	742	0	1004
6	A105_02510T0	Z519_07044T0	94.82	1294	67	0	1	1294	1	1294	0	2479
1	A105_02525T0	Z519_07055T0	94.82	328	17	0	1	328	1	328	0	589
1	A105_04590T0	Z519_02418T0	94.82	1140	57	1	1	1140	1	1138	0	2189
6	A105_05309T0	Z519_08184T0	94.82	367	19	0	1	367	1	367	0	716
9	A105_07733T0	Z519_07548T0	94.82	463	24	0	1	463	1	463	0	792
2	A105_10951T0	Z519_11489T0	94.82	328	17	0	1	328	1	328	0	600
45	A105_12706T0	Z519_09801T0	94.82	463	23	1	1	462	126	588	0	872
10	A105_01455T0	Z519_11813T0	94.83	464	24	0	1	464	75	538	0	882
1	A105_04186T0	Z519_03465T0	94.83	619	29	2	1	616	1	619	0	896
1	A105_06234T0	Z519_10777T0	94.83	271	14	0	1	271	1	271	7.00E-164	459
3	A105_06595T0	Z519_09070T0	94.83	116	6	0	405	520	1	116	2.00E-72	228
2	A105_07383T0	Z519_05955T0	94.83	716	37	0	1	716	1	716	0	1368
6	A105_08562T0	Z519_04082T0	94.83	542	28	0	32	573	2	543	0	1053
4	A105_09086T0	Z519_05196T0	94.83	58	3	0	1	58	1	58	1.00E-33	120
3	A105_09634T0	Z519_10570T0	94.83	232	12	0	1	232	1	232	2.00E-164	457
1	A105_11931T0	Z519_02030T0	94.83	232	12	0	1	232	1	232	4.00E-151	423

38	A105_13357T0	Z519_09302T0	94.83	1142	59	0	1	1142	1	1142	0	2258
1	A105_00449T0	Z519_00456T0	94.84	407	20	1	1	407	1	406	0	788
5	A105_01265T0	Z519_08531T0	94.84	833	43	0	1	833	163	995	0	1551
6	A105_01420T0	Z519_11848T0	94.84	349	18	0	25	373	1	349	0	637
62	A105_03631T0	Z519_09759T0	94.84	368	19	0	1	368	1	368	0	686
5	A105_04789T0	Z519_02616T0	94.84	155	8	0	1	155	1	155	6.00E-100	287
1	A105_09167T0	Z519_05278T0	94.84	697	36	0	1	697	1	697	0	1253
54	A105_09772T0	Z519_10450T0	94.84	213	11	0	9	221	2	214	2.00E-148	421
7	A105_10691T0	Z519_09877T0	94.84	407	21	0	1	407	210	616	0	790
2	A105_11228T0	Z519_08852T0	94.84	252	13	0	1	252	1	252	7.00E-158	442
1	A105_11965T0	Z519_05767T0	94.84	736	37	1	1	736	1	735	0	1399
1	A105_00131T0	Z519_00132T0	94.85	194	9	1	1	194	1	193	2.00E-117	334
73	A105_01283T0	Z519_08548T0	94.85	1281	64	1	1	1281	1	1279	0	2446
7	A105_01497T0	Z519_01917T0	94.85	447	23	0	1	447	1	447	0	882
1	A105_03694T0	Z519_03013T0	94.85	524	26	1	1	523	1	524	0	896
1	A105_04270T0	Z519_03548T0	94.85	136	7	0	1	136	1	136	3.00E-93	268
2	A105_04379T0	Z519_02206T0	94.85	427	22	0	1	427	1	427	0	816
2	A105_04474T0	Z519_02303T0	94.85	136	7	0	1	136	1	136	3.00E-92	266
25	A105_04827T0	Z519_02652T0	94.85	330	14	1	1	330	1	327	0	586
1	A105_04979T0	Z519_02803T0	94.85	621	32	0	1	621	1	621	0	1183
1	A105_05533T0	Z519_03649T0	94.85	194	10	0	1	194	1	194	2.00E-136	382
1	A105_07320T0	Z519_09295T0	94.85	369	19	0	4	372	26	394	0	703
3	A105_08399T0	Z519_05644T0	94.85	233	12	0	1	233	451	683	9.00E-155	449
2	A105_08668T0	Z519_03990T0	94.85	330	17	0	1	330	1	330	0	559
68	A105_09155T0	Z519_05265T0	94.85	563	29	0	1	563	1	563	0	1111
20	A105_09266T0	Z519_05373T0	94.85	330	17	0	1	330	1	330	0	649
1	A105_11262T0	Z519_08815T0	94.85	136	7	0	1	136	1	136	4.00E-87	253
12	A105_11614T0	Z519_08682T0	94.85	194	10	0	1	194	1	194	1.00E-136	383
1	A105_12280T0	Z519_04474T0	94.85	1398	72	0	1	1398	1	1398	0	2589
1	A105_00482T0	Z519_00489T0	94.86	486	25	0	1	486	1	486	0	933
3	A105_02264T0	Z519_11713T0	94.86	350	18	0	1	350	1	350	0	691
1	A105_03981T0	Z519_03279T0	94.86	175	9	0	1	175	1	175	9.00E-121	341
1	A105_04145T0	Z519_03425T0	94.86	253	13	0	1	253	1	253	5.00E-155	434
3	A105_04787T0	Z519_02614T0	94.86	311	16	0	1	311	1	311	0	555
1	A105_07183T0	Z519_06317T0	94.86	253	12	1	1	253	1	252	5.00E-152	427

29	A105_08600T0	Z519_04049T0	94.86	350	18	0	1	350	1	350	0	678
23	A105_08994T0	Z519_05100T0	94.86	701	36	0	1	701	1	701	0	1313
3	A105_10100T0	Z519_10284T0	94.86	681	15	1	15	675	1	681	0	1330
1	A105_10270T0	Z519_10937T0	94.86	1538	75	1	1	1538	1	1534	0	2976
1	A105_12472T0	Z519_12646T0	94.86	370	19	0	1	370	1	370	0	736
4	A105_13247T0	Z519_12166T0	94.86	311	16	0	1	311	1	311	0	608
3	A105_00292T0	Z519_00302T0	94.87	702	36	0	1	702	1	702	0	1270
1	A105_01883T0	Z519_01581T0	94.87	897	46	0	1	897	1	897	0	1694
5	A105_02957T0	Z519_12071T0	94.87	546	23	2	1	545	1	542	0	968
8	A105_04591T0	Z519_02419T0	94.87	604	31	0	1	604	1	604	0	1099
2	A105_05055T0	Z519_07946T0	94.87	819	42	0	1	819	1	819	0	1591
1	A105_05063T0	Z519_07953T0	94.87	78	4	0	1	78	1	78	6.00E-50	154
1	A105_06251T0	Z519_10761T0	94.87	663	34	0	31	693	53	715	0	1279
2	A105_07173T0	Z519_06329T0	94.87	487	24	1	1	487	1	486	0	902
7	A105_10438T0	Z519_11314T0	94.87	351	18	0	1	351	1	351	0	649
2	A105_11531T0	Z519_11567T0	94.87	195	9	1	1	194	1	195	4.00E-124	351
4	A105_12491T0	Z519_02824T0	94.87	273	14	0	1	273	364	636	0	547
1	A105_00919T0	Z519_00854T0	94.88	430	22	0	1	430	1	430	0	837
1	A105_02707T0	Z519_07244T0	94.88	703	33	2	1	703	1	700	0	1347
1	A105_03196T0	Z519_10047T0	94.88	723	32	2	1	722	1	719	0	1295
7	A105_03850T0	Z519_03168T0	94.88	879	44	1	1	878	1	879	0	1703
31	A105_03984T0	Z519_03282T0	94.88	371	19	0	1	371	1	371	0	747
5	A105_05339T0	Z519_08212T0	94.88	488	25	0	1	488	1	488	0	949
4	A105_06025T0	Z519_04710T0	94.88	254	13	0	1	254	1	254	4.00E-153	430
29	A105_06479T0	Z519_09186T0	94.88	469	20	1	1	465	335	803	0	922
1	A105_07231T0	Z519_05808T0	94.88	215	11	0	1	215	1	215	4.00E-107	310
4	A105_07569T0	Z519_06133T0	94.88	391	20	0	1	391	1	391	0	737
1	A105_10432T0	Z519_11307T0	94.88	215	11	0	1	215	1	215	3.00E-146	409
1	A105_11830T0	Z519_01936T0	94.88	293	15	0	1	293	1	293	0	556
3	A105_01541T0	Z519_01878T0	94.89	626	32	0	12	637	12	637	0	1199
1	A105_02315T0	Z519_11660T0	94.89	235	12	0	1	235	1	235	2.00E-120	347
2	A105_04224T0	Z519_03503T0	94.89	372	9	1	1	372	1	362	0	720
28	A105_05307T0	Z519_08182T0	94.89	548	28	0	1	548	1	548	0	1051
7	A105_12897T0	Z519_07501T0	94.89	372	19	0	1	372	60	431	0	673
2	A105_01628T0	Z519_01789T0	94.9	726	37	0	1	726	1	726	0	1371

1	A105_01649T0	Z519_01767T0	94.9	765	39	0	1	765	1	765	0	1350
1	A105_02171T0	Z519_01308T0	94.9	549	10	1	1	549	1	531	0	1035
2	A105_03027T0	Z519_12008T0	94.9	471	24	0	1	471	1	471	0	922
1	A105_05906T0	Z519_04828T0	94.9	431	22	0	1	431	1	431	0	826
1	A105_06106T0	Z519_04631T0	94.9	157	8	0	1	157	1	157	4.00E-104	297
95	A105_07075T0	Z519_06426T0	94.9	1256	64	0	1	1256	1	1256	0	2399
4	A105_07392T0	Z519_05965T0	94.9	725	33	1	1	721	1	725	0	1192
1	A105_09549T0	Z519_01047T0	94.9	1059	49	1	11	1064	11	1069	0	1729
1	A105_10523T0	Z519_12621T0	94.9	98	5	0	9	106	23	120	4.00E-42	136
1	A105_12985T0	Z519_04402T0	94.9	902	46	0	1	902	1	902	0	1719
1	A105_13129T0	Z519_11255T0	94.9	431	17	2	1	430	1	427	0	744
1	A105_02316T0	Z519_11659T0	94.91	786	37	2	1	784	1	785	0	1415
5	A105_02980T0	Z519_12049T0	94.91	629	32	0	1	629	68	696	0	1129
1	A105_03477T0	Z519_09603T0	94.91	275	14	0	1	275	1	275	0	526
2	A105_07546T0	Z519_06109T0	94.91	432	18	1	1	432	1	428	0	795
3	A105_08619T0	Z519_04030T0	94.91	530	27	0	1	530	1	530	0	1017
1	A105_08968T0	Z519_05071T0	94.91	1140	53	2	1	1140	1	1135	0	2092
1	A105_09476T0	Z519_01110T0	94.91	216	11	0	1	216	1	216	2.00E-150	420
3	A105_09801T0	Z519_10419T0	94.91	334	17	0	1	334	139	472	0	635
5	A105_09876T0	Z519_10342T0	94.91	963	48	1	27	989	132	1093	0	1781
1	A105_10032T0	Z519_04135T0	94.91	432	22	0	1	432	1	432	0	815
15	A105_10715T0	Z519_09903T0	94.91	373	19	0	1	373	1	373	0	724
1	A105_11017T0	Z519_06816T0	94.91	1493	75	1	1	1492	1	1493	0	2781
5	A105_11870T0	Z519_01974T0	94.91	275	14	0	1	275	5	279	0	514
59	A105_12637T0	Z519_05400T0	94.91	491	25	0	1	491	1	491	0	928
1	A105_00029T0	Z519_00028T0	94.92	256	13	0	1	256	1	256	1.00E-177	493
1	A105_02508T0	Z519_07042T0	94.92	118	6	0	75	192	1	118	7.00E-80	236
1	A105_02849T0	Z519_07379T0	94.92	236	12	0	1	236	1	236	2.00E-166	462
2	A105_03673T0	Z519_02993T0	94.92	1280	63	2	1	1278	209	1488	0	2224
10	A105_05022T0	Z519_07909T0	94.92	492	25	0	1	492	1	492	0	981
4	A105_05585T0	Z519_03697T0	94.92	591	11	1	1	572	1	591	0	1124
1	A105_06045T0	Z519_04694T0	94.92	394	20	0	1	394	1	394	0	766
11	A105_06816T0	Z519_06684T0	94.92	413	20	1	1	412	1	413	0	739
3	A105_09268T0	Z519_05375T0	94.92	610	31	0	1	610	1	610	0	1146
43	A105_10930T0	Z519_11469T0	94.92	1161	59	0	1	1161	1	1161	0	2201

11	A105_11028T0	Z519_06830T0	94.92	315	16	0	1	315	1	315	0	612
10	A105_11645T0	Z519_08653T0	94.92	472	24	0	3	474	5	476	0	921
1	A105_11858T0	Z519_01962T0	94.92	433	20	1	1	433	11	441	0	818
153	A105_12725T0	Z519_09789T0	94.92	1064	40	1	1	1050	1	1064	0	2042
1	A105_00608T0	Z519_00619T0	94.93	375	19	0	1	375	1	375	0	737
11	A105_03159T0	Z519_10009T0	94.93	552	28	0	1	552	1	552	0	1036
1	A105_04193T0	Z519_03472T0	94.93	829	39	2	1	828	32	858	0	1555
2	A105_05308T0	Z519_08183T0	94.93	434	22	0	1	434	94	527	0	850
2	A105_05872T0	Z519_04862T0	94.93	138	7	0	1	138	168	305	2.00E-94	278
3	A105_06468T0	Z519_09194T0	94.93	276	13	1	12	287	40	314	0	546
1	A105_07092T0	Z519_06407T0	94.93	414	21	0	1	414	1	414	0	729
21	A105_10325T0	Z519_10992T0	94.93	375	19	0	1	375	1	375	0	709
1	A105_10578T0	Z519_12567T0	94.93	276	14	0	1	276	1	276	0	539
4	A105_10898T0	Z519_11438T0	94.93	828	42	0	1	828	1	828	0	1494
155	A105_13246T0	Z519_12167T0	94.93	473	24	0	1	473	2	474	0	920
1	A105_01049T0	Z519_00972T0	94.94	593	30	0	1	593	1	593	0	1139
1	A105_01434T0	Z519_11834T0	94.94	415	11	3	1	415	1	405	0	761
1	A105_01438T0	Z519_11830T0	94.94	1165	58	1	1	1165	1	1164	0	2204
1	A105_02491T0	Z519_07024T0	94.94	336	17	0	1	336	1	336	0	670
21	A105_02537T0	Z519_07067T0	94.94	316	16	0	1	316	1	316	0	619
1	A105_05395T0	Z519_08269T0	94.94	395	20	0	1	395	1	395	0	588
80	A105_05688T0	Z519_11161T0	94.94	514	26	0	1	514	9	522	0	931
2	A105_07323T0	Z519_05895T0	94.94	474	24	0	1	474	18	491	0	929
33	A105_07578T0	Z519_06141T0	94.94	356	18	0	1	356	1	356	0	704
1	A105_09657T0	Z519_10547T0	94.94	237	12	0	1	237	1	237	3.00E-166	462
1	A105_10522T0	Z519_12622T0	94.94	79	4	0	1	79	1	79	2.00E-49	152
6	A105_11769T0	Z519_02911T0	94.94	494	23	1	1	494	1	492	0	834
1	A105_12232T0	Z519_04521T0	94.94	613	30	1	1	612	1	613	0	1185
1	A105_01221T0	Z519_08489T0	94.95	832	42	0	1	832	1	832	0	1515
88	A105_01256T0	Z519_08522T0	94.95	614	28	2	1	612	1	613	0	1153
15	A105_01957T0	Z519_01502T0	94.95	436	22	0	1	436	1	436	0	828
1	A105_02675T0	Z519_07208T0	94.95	416	18	1	1	416	1	413	0	813
1	A105_05441T0	Z519_08318T0	94.95	475	23	1	1	474	1	475	0	828
2	A105_06009T0	Z519_04727T0	94.95	99	5	0	180	278	27	125	1.00E-63	198
85	A105_07300T0	Z519_05875T0	94.95	594	29	1	1	594	1	593	0	1101

1	A105_07988T0	Z519_07824T0	94.95	515	26	0	1	515	1	515	0	1004
50	A105_08019T0	Z519_07856T0	94.95	297	15	0	1	297	1	297	0	586
9	A105_08559T0	Z519_04085T0	94.95	673	34	0	1	673	1	673	0	1322
9	A105_08640T0	Z519_04018T0	94.95	317	16	0	1	317	1	317	0	629
1	A105_12202T0	Z519_04549T0	94.95	535	26	1	1	535	1	534	0	910
12	A105_12525T0	Z519_02856T0	94.95	198	10	0	1	198	1	198	1.00E-141	396
10	A105_12620T0	Z519_05421T0	94.95	436	22	0	1	436	1	436	0	864
2	A105_12889T0	Z519_07492T0	94.95	475	24	0	1	475	1	475	0	923
12	A105_00457T0	Z519_00464T0	94.96	1210	61	0	1	1210	1	1210	0	2278
3	A105_00473T0	Z519_00480T0	94.96	695	35	0	1	695	1	695	0	1321
14	A105_01783T0	Z519_01682T0	94.96	337	17	0	1	337	1	337	0	666
5	A105_02140T0	Z519_01338T0	94.96	615	31	0	1	615	1	615	0	1200
1	A105_02650T0	Z519_07182T0	94.96	496	25	0	1	496	1	496	0	870
1	A105_05733T0	Z519_11115T0	94.96	119	6	0	1	119	1	119	5.00E-54	167
1	A105_05960T0	Z519_04775T0	94.96	1171	56	2	1	1169	1	1170	0	2114
1	A105_06797T0	Z519_06706T0	94.96	238	12	0	1	238	120	357	2.00E-164	462
5	A105_06829T0	Z519_06672T0	94.96	377	19	0	1	377	1	377	0	739
2	A105_11760T0	Z519_02920T0	94.96	793	40	0	1	793	1	793	0	1568
31	A105_12735T0	Z519_10795T0	94.96	337	15	1	1	337	1	335	0	619
1	A105_13013T0	Z519_04430T0	94.96	496	25	0	1	496	1	496	0	975
1	A105_01782T0	Z519_01683T0	94.97	796	40	0	1	796	1	796	0	1543
1	A105_02736T0	Z519_07269T0	94.97	457	23	0	1	457	1	457	0	837
4	A105_03943T0	Z519_03240T0	94.97	318	14	1	1	316	1	318	0	614
108	A105_04202T0	Z519_03481T0	94.97	1014	29	1	1	992	1	1014	0	1972
3	A105_05814T0	Z519_04919T0	94.97	954	47	1	1	954	1	953	0	1749
77	A105_07577T0	Z519_06141T0	94.97	736	37	0	1	736	451	1186	0	1417
1	A105_07817T0	Z519_07632T0	94.97	1372	67	1	1	1370	1	1372	0	2390
9	A105_10315T0	Z519_10980T0	94.97	676	30	1	7	682	54	725	0	1306
53	A105_10765T0	Z519_12300T0	94.97	596	14	1	1	580	1	596	0	1113
23	A105_11033T0	Z519_06833T0	94.97	1192	60	0	1	1192	1	1192	0	2251
2	A105_11208T0	Z519_08875T0	94.97	159	8	0	1	159	1	159	4.00E-109	310
10	A105_11924T0	Z519_02026T0	94.97	577	29	0	1	577	1	577	0	1144
3	A105_12160T0	Z519_09276T0	94.97	577	29	0	1	577	1	577	0	1136
4	A105_12241T0	Z519_04511T0	94.97	398	20	0	1	398	1	398	0	786
1	A105_12739T0	Z519_10798T0	94.97	199	10	0	1	199	1	199	7.00E-125	363

1	A105_12832T0	Z519_07435T0	94.97	517	26	0	1	517	1	517	0	1021
3	A105_13209T0	Z519_12495T0	94.97	159	8	0	1	159	1	159	2.00E-109	311
1	A105_02348T0	Z519_11623T0	94.98	518	25	1	1	518	1	517	0	826
1	A105_02838T0	Z519_07368T0	94.98	219	11	0	18	236	1	219	2.00E-155	434
162	A105_04313T0	Z519_03591T0	94.98	518	26	0	1	518	1	518	0	1011
3	A105_04858T0	Z519_02682T0	94.98	259	13	0	1	259	1	259	0	508
4	A105_05598T0	Z519_03707T0	94.98	219	11	0	1	219	1	219	1.00E-155	433
33	A105_06387T0	Z519_10653T0	94.98	578	29	0	1	578	1	578	0	1095
1	A105_08581T0	Z519_04064T0	94.98	997	46	3	1	996	1	994	0	1795
69	A105_10600T0	Z519_12553T0	94.98	578	29	0	1	578	191	768	0	1109
6	A105_12497T0	Z519_02831T0	94.98	458	23	0	1	458	1	458	0	910
12	A105_12805T0	Z519_12784T0	94.98	677	34	0	1	677	1	677	0	1352
5	A105_00830T0	Z519_00776T0	94.99	459	23	0	1	459	1	459	0	862
1	A105_02936T0	Z519_12092T0	94.99	339	17	0	1	339	1	339	0	660
38	A105_05122T0	Z519_08013T0	94.99	359	18	0	1	359	1	359	0	698
98	A105_06924T0	Z519_06576T0	94.99	819	41	0	1	819	1	819	0	1543
81	A105_10051T0	Z519_04115T0	94.99	439	22	0	19	457	87	525	0	863
2	A105_11245T0	Z519_08832T0	94.99	399	20	0	1	399	1	399	0	788
18	A105_11609T0	Z519_08687T0	94.99	379	19	0	102	480	1	379	0	746
1	A105_12376T0	Z519_12461T0	94.99	878	42	1	1	876	1	878	0	1581
1	A105_12580T0	Z519_05463T0	94.99	718	35	1	1	718	1	717	0	1314
3	A105_01979T0	Z519_01480T0	95	300	14	1	1	300	1	299	0	580
4	A105_02934T0	Z519_12744T0	95	580	29	0	1	580	1	580	0	1132
28	A105_03009T0	Z519_12020T0	95	480	18	1	1	480	1	474	0	927
1	A105_03594T0	Z519_09721T0	95	800	40	0	1	800	1	800	0	1555
49	A105_04077T0	Z519_03353T0	95	540	27	0	1	540	147	686	0	1049
12	A105_04192T0	Z519_03471T0	95	320	16	0	1	320	1	320	0	615
2	A105_04780T0	Z519_02607T0	95	420	21	0	1	420	1	420	0	825
15	A105_04879T0	Z519_02704T0	95	80	4	0	1	80	839	918	7.00E-50	168
1	A105_05613T0	Z519_03722T0	95	160	8	0	1	160	1	160	6.00E-82	241
1	A105_06132T0	Z519_04605T0	95	80	4	0	4	83	2	81	1.00E-48	151
5	A105_06979T0	Z519_06517T0	95	280	14	0	1	280	1	280	1.00E-173	484
1	A105_09307T0	Z519_01259T0	95	620	31	0	1	620	1	620	0	1068
1	A105_10462T0	Z519_11339T0	95	100	5	0	28	127	88	187	2.00E-59	183
2	A105_10561T0	Z519_12583T0	95	160	8	0	1	160	1	160	7.00E-108	307

1	A105_11989T0	Z519_05743T0	95	240	12	0	1	240	1	240	9.00E-159	443
1	A105_12406T0	Z519_06271T0	95	180	9	0	1	180	1	180	3.00E-120	340
3	A105_12484T0	Z519_02818T0	95	220	11	0	47	266	1	220	3.00E-154	432
1	A105_00561T0	Z519_00572T0	95.01	421	21	0	1	421	1	421	0	801
80	A105_03210T0	Z519_10060T0	95.01	561	28	0	1	561	1	561	0	1052
85	A105_03491T0	Z519_09615T0	95.01	401	16	1	1	401	1	397	0	743
1	A105_04475T0	Z519_02304T0	95.01	501	22	1	1	501	1	498	0	957
147	A105_05110T0	Z519_08000T0	95.01	541	26	1	1	541	18	557	0	1013
1	A105_05433T0	Z519_08310T0	95.01	401	15	2	1	396	1	401	0	739
12	A105_07486T0	Z519_06052T0	95.01	702	24	2	1	692	1	701	0	1355
2	A105_09887T0	Z519_10331T0	95.01	381	17	1	1	379	1	381	0	734
3	A105_10185T0	Z519_10851T0	95.01	1644	82	0	1	1644	1	1644	0	3134
3	A105_10418T0	Z519_11294T0	95.01	381	19	0	1	381	1	381	0	758
1	A105_10962T0	Z519_11498T0	95.01	541	27	0	1	541	1	541	0	913
1	A105_11275T0	Z519_08803T0	95.01	341	17	0	1	341	1	341	0	673
11	A105_00001T0	Z519_00001T0	95.02	582	29	0	1	582	1	582	0	1153
151	A105_00432T0	Z519_00438T0	95.02	462	23	0	1	462	1	462	0	920
13	A105_02421T0	Z519_06949T0	95.02	542	27	0	1	542	1	542	0	1034
3	A105_06648T0	Z519_09019T0	95.02	301	15	0	1	301	1	301	0	566
6	A105_07543T0	Z519_06106T0	95.02	442	22	0	1	442	1	442	0	735
2	A105_08755T0	Z519_03901T0	95.02	241	8	1	1	241	1	237	3.00E-170	472
1	A105_10567T0	Z519_12577T0	95.02	221	11	0	1	221	1	221	6.00E-156	434
1	A105_11272T0	Z519_08806T0	95.02	201	10	0	1	201	1	201	5.00E-140	392
28	A105_12693T0	Z519_09815T0	95.02	261	13	0	1	261	1	261	0	509
30	A105_12862T0	Z519_07465T0	95.02	321	16	0	1	321	1	321	0	613
4	A105_13177T0	Z519_04345T0	95.02	241	12	0	1	241	1	241	5.00E-174	482
3	A105_00463T0	Z519_00470T0	95.03	483	13	1	8	479	10	492	0	875
1	A105_00536T0	Z519_00543T0	95.03	503	25	0	1	503	1	503	0	902
14	A105_01375T0	Z519_11894T0	95.03	543	27	0	1	543	1	543	0	1057
2	A105_01528T0	Z519_01892T0	95.03	362	14	1	1	358	1	362	0	667
1	A105_02434T0	Z519_06964T0	95.03	382	19	0	1	382	1	382	0	739
41	A105_04184T0	Z519_03463T0	95.03	644	32	0	18	661	2	645	0	1262
2	A105_04710T0	Z519_02540T0	95.03	443	18	1	1	443	1	439	0	822
22	A105_05349T0	Z519_08222T0	95.03	543	27	0	1	543	1	543	0	1079
1	A105_07535T0	Z519_06097T0	95.03	382	17	1	1	382	71	450	0	715

8	A105_09300T0	Z519_01267T0	95.03	342	17	0	1	342	1	342	0	671
2	A105_11107T0	Z519_06908T0	95.03	302	15	0	1	302	1	302	0	601
1	A105_12817T0	Z519_12535T0	95.03	362	18	0	1	362	1	362	0	570
1	A105_00076T0	Z519_00075T0	95.04	585	29	0	18	602	18	602	0	1080
1	A105_00283T0	Z519_00292T0	95.04	1008	49	1	1	1008	1	1007	0	1998
1	A105_03396T0	Z519_10217T0	95.04	928	46	0	1	928	1	928	0	1713
5	A105_06097T0	Z519_04646T0	95.04	343	17	0	1	343	1	343	0	672
1	A105_06751T0	Z519_06758T0	95.04	121	6	0	1	121	1	121	6.00E-80	233
1	A105_10134T0	Z519_04284T0	95.04	585	29	0	1	585	1	585	0	1168
1	A105_10138T0	Z519_04289T0	95.04	363	18	0	1	363	1	363	0	570
1	A105_10470T0	Z519_11346T0	95.04	565	28	0	13	577	13	577	0	1010
5	A105_10861T0	Z519_11399T0	95.04	282	14	0	1	282	1	282	3.00E-169	473
112	A105_00870T0	Z519_00819T0	95.05	546	27	0	1	546	1	546	0	1070
15	A105_01667T0	Z519_01749T0	95.05	586	29	0	1	586	1	586	0	1097
8	A105_01682T0	Z519_01735T0	95.05	525	26	0	1	525	144	668	0	1038
1	A105_03466T0	Z519_09591T0	95.05	667	27	2	1	661	1	667	0	1192
27	A105_04114T0	Z519_03387T0	95.05	182	9	0	74	255	212	393	2.00E-125	364
1	A105_04290T0	Z519_03571T0	95.05	101	5	0	21	121	21	121	2.00E-59	187
1	A105_05709T0	Z519_11141T0	95.05	323	16	0	1	323	1	323	0	630
12	A105_06483T0	Z519_09181T0	95.05	323	16	0	1	323	1	323	0	554
1	A105_07958T0	Z519_07799T0	95.05	323	16	0	1	323	1	323	0	607
2	A105_08142T0	Z519_09365T0	95.05	949	46	1	1	948	1	949	0	1749
1	A105_09020T0	Z519_05125T0	95.05	101	5	0	1	101	1	101	1.00E-55	170
1	A105_10208T0	Z519_10874T0	95.05	1050	52	0	1	1050	1	1050	0	1959
46	A105_11137T0	Z519_08938T0	95.05	1636	81	0	21	1656	49	1684	0	3089
1	A105_11329T0	Z519_02130T0	95.05	182	9	0	1	182	1	182	4.00E-123	348
5	A105_11395T0	Z519_02064T0	95.05	283	14	0	1	283	1	283	0	555
3	A105_11464T0	Z519_08747T0	95.05	586	29	0	1	586	1	586	0	1031
154	A105_12113T0	Z519_12373T0	95.05	546	27	0	1	546	1	546	0	1073
1	A105_00062T0	Z519_00061T0	95.06	1012	50	0	1	1012	1	1012	0	1966
39	A105_01055T0	Z519_00978T0	95.06	263	13	0	1	263	1	263	0	520
1	A105_02386T0	Z519_11585T0	95.06	243	12	0	1	243	1	243	3.00E-165	461
1	A105_06018T0	Z519_04718T0	95.06	344	17	0	1	344	1	344	0	639
1	A105_06409T0	Z519_10632T0	95.06	971	48	0	1	971	1	971	0	1798
2	A105_08761T0	Z519_03896T0	95.06	567	24	1	1	567	1	563	0	1008

1	A105_10565T0	Z519_12579T0	95.06	81	4	0	2	82	47	127	7.00E-54	166
1	A105_11023T0	Z519_06822T0	95.06	526	26	0	1	526	1	526	0	1027
1	A105_12559T0	Z519_05487T0	95.06	526	26	0	1	526	1	526	0	976
1	A105_00425T0	Z519_00427T0	95.07	467	18	3	1	467	1	462	0	910
36	A105_00525T0	Z519_00532T0	95.07	446	22	0	1	446	1	446	0	863
108	A105_02196T0	Z519_01004T0	95.07	548	21	1	1	542	1	548	0	1078
11	A105_06560T0	Z519_09106T0	95.07	487	24	0	1	487	1	487	0	972
1	A105_07996T0	Z519_07832T0	95.07	548	27	0	1	548	1	548	0	1055
11	A105_08275T0	Z519_09496T0	95.07	142	7	0	1	142	1	142	3.00E-98	281
45	A105_08289T0	Z519_09510T0	95.07	669	33	0	1	669	1	669	0	1316
15	A105_08437T0	Z519_05614T0	95.07	304	15	0	1	304	1	304	0	567
4	A105_08467T0	Z519_05585T0	95.07	954	42	1	1	954	1	949	0	1854
1	A105_08669T0	Z519_03989T0	95.07	345	17	0	1	345	1	345	0	637
1	A105_12015T0	Z519_05714T0	95.07	284	14	0	1	284	1	284	0	551
4	A105_00008T0	Z519_00008T0	95.08	853	38	2	1	853	1	849	0	1573
1	A105_01305T0	Z519_08569T0	95.08	183	9	0	1	183	1	183	2.00E-109	313
3	A105_02112T0	Z519_01368T0	95.08	610	30	0	1	610	1	610	0	1212
9	A105_02514T0	Z519_07048T0	95.08	731	36	0	1	731	124	854	0	1434
4	A105_04143T0	Z519_03423T0	95.08	650	32	0	1	650	1	650	0	1195
76	A105_04318T0	Z519_03595T0	95.08	244	12	0	1	244	1	244	4.00E-165	461
22	A105_04353T0	Z519_02177T0	95.08	366	18	0	1	366	1	366	0	725
1	A105_04976T0	Z519_02800T0	95.08	183	9	0	1	183	1	183	7.00E-119	337
4	A105_05542T0	Z519_03659T0	95.08	712	35	0	1	712	1	712	0	1355
48	A105_06071T0	Z519_04672T0	95.08	264	13	0	1	264	83	346	0	526
2	A105_06868T0	Z519_06633T0	95.08	305	15	0	22	326	22	326	0	596
2	A105_07316T0	Z519_05891T0	95.08	264	13	0	1	264	1	264	0	523
9	A105_07518T0	Z519_06084T0	95.08	244	12	0	1	244	1	244	1.00E-158	443
58	A105_08766T0	Z519_03891T0	95.08	264	13	0	1	264	1	264	3.00E-177	492
16	A105_10209T0	Z519_10875T0	95.08	895	26	3	1	895	1	877	0	1647
2	A105_11331T0	Z519_02128T0	95.08	244	4	2	1	244	1	236	6.00E-169	469
35	A105_12894T0	Z519_07498T0	95.08	1200	58	1	1	1200	1	1199	0	2314
6	A105_12978T0	Z519_04395T0	95.08	427	21	0	1	427	1	427	0	839
1	A105_00770T0	Z519_00764T0	95.09	692	28	1	1	686	4	695	0	1285
1	A105_01366T0	Z519_11902T0	95.09	448	21	1	1	448	1	447	0	892
52	A105_02899T0	Z519_07430T0	95.09	428	21	0	1	428	1	428	0	830

43	A105_04081T0	Z519_03356T0	95.09	672	29	2	26	697	548	1215	0	1287
2	A105_05305T0	Z519_08178T0	95.09	163	8	0	1	163	1	163	1.00E-106	306
1	A105_07049T0	Z519_06453T0	95.09	407	20	0	1	407	1	407	0	809
29	A105_07153T0	Z519_06348T0	95.09	326	16	0	1	326	1	326	0	651
1	A105_07827T0	Z519_07643T0	95.09	509	25	0	1	509	1	509	0	989
1	A105_09072T0	Z519_05183T0	95.09	265	13	0	268	532	1	265	1.00E-129	382
77	A105_11975T0	Z519_05757T0	95.09	468	23	0	1	468	1	468	0	862
3	A105_00339T0	Z519_00344T0	95.1	306	15	0	1	306	1	306	0	598
1	A105_03841T0	Z519_03159T0	95.1	715	35	0	1	715	1	715	0	1311
8	A105_04309T0	Z519_03587T0	95.1	408	20	0	1	408	1	408	0	823
1	A105_05258T0	Z519_08131T0	95.1	245	12	0	1	245	1	245	2.00E-171	476
1	A105_06170T0	Z519_04570T0	95.1	674	32	1	1	673	1	674	0	1190
5	A105_06440T0	Z519_10601T0	95.1	204	10	0	1	204	1	204	4.00E-143	400
5	A105_07825T0	Z519_07641T0	95.1	612	30	0	1	612	1	612	0	1211
2	A105_08042T0	Z519_07877T0	95.1	306	15	0	1	306	1	306	0	520
14	A105_08612T0	Z519_04037T0	95.1	1246	61	0	1	1246	6	1251	0	2411
1	A105_08916T0	Z519_03737T0	95.1	306	15	0	1	306	1	306	0	507
3	A105_09821T0	Z519_10396T0	95.1	102	5	0	1	102	1	102	3.00E-64	192
3	A105_10676T0	Z519_09863T0	95.1	571	18	1	1	561	1	571	0	1072
162	A105_10859T0	Z519_11397T0	95.1	531	26	0	1	531	11	541	0	1050
1	A105_12051T0	Z519_05680T0	95.1	143	7	0	1	143	1	143	7.00E-101	290
1	A105_01677T0	Z519_01739T0	95.11	225	11	0	1	225	1	225	3.00E-158	442
2	A105_02302T0	Z519_11674T0	95.11	696	34	0	1	696	1	696	0	1308
1	A105_04020T0	Z519_03315T0	95.11	368	18	0	1	368	1	368	0	701
18	A105_06763T0	Z519_06743T0	95.11	511	25	0	6	516	18	528	0	993
1	A105_06921T0	Z519_06578T0	95.11	1064	52	0	1	1064	1	1064	0	1863
1	A105_08459T0	Z519_05593T0	95.11	1227	57	2	1	1226	1	1225	0	2255
3	A105_08525T0	Z519_05527T0	95.11	879	43	0	1	879	1	879	0	1654
3	A105_11456T0	Z519_08739T0	95.11	184	9	0	1	184	1	184	1.00E-130	367
3	A105_12796T0	Z519_12792T0	95.11	266	13	0	1	266	1	266	0	531
98	A105_12981T0	Z519_04398T0	95.11	532	26	0	1	532	1	532	0	1029
1	A105_00087T0	Z519_00086T0	95.12	41	2	0	1	41	1	41	2.00E-21	84.3
17	A105_01472T0	Z519_11795T0	95.12	574	28	0	1	574	1	574	0	1107
1	A105_02164T0	Z519_01317T0	95.12	533	26	0	1	533	1	533	0	1038
1	A105_04129T0	Z519_03408T0	95.12	164	8	0	1	164	153	316	6.00E-107	311

48	A105_07793T0	Z519_07608T0	95.12	246	12	0	17	262	17	262	3.00E-175	486
3	A105_07946T0	Z519_07788T0	95.12	737	36	0	1	737	1	737	0	1412
60	A105_08983T0	Z519_05087T0	95.12	1454	67	1	1	1450	1	1454	0	2803
1	A105_10524T0	Z519_12620T0	95.12	369	18	0	1	369	1	369	0	696
20	A105_12614T0	Z519_05427T0	95.12	328	16	0	1	328	1	328	0	647
2	A105_13331T0	Z519_05002T0	95.12	164	8	0	1	164	1	164	6.00E-110	313
2	A105_02135T0	Z519_01343T0	95.13	554	26	1	1	554	1	553	0	1064
2	A105_05674T0	Z519_11175T0	95.13	411	20	0	1	411	1	411	0	817
1	A105_07260T0	Z519_05839T0	95.13	760	24	2	1	760	1	747	0	1310
2	A105_09656T0	Z519_10548T0	95.13	267	13	0	1	267	9	275	0	513
5	A105_11322T0	Z519_02138T0	95.13	431	21	0	1	431	1	431	0	840
10	A105_11815T0	Z519_02874T0	95.13	349	17	0	1	349	1	349	0	688
26	A105_13440T0	Z519_12180T0	95.13	883	43	0	1	883	1	883	0	1769
32	A105_05238T0	Z519_08111T0	95.14	350	17	0	1	350	1	350	0	696
1	A105_05474T0	Z519_08349T0	95.14	350	17	0	1	350	1	350	0	681
68	A105_05706T0	Z519_11144T0	95.14	535	26	0	1	535	1	535	0	1031
1	A105_05717T0	Z519_11133T0	95.14	288	14	0	1	288	1	288	4.00E-173	483
13	A105_05971T0	Z519_04764T0	95.14	391	19	0	1	391	105	495	0	776
1	A105_06805T0	Z519_06698T0	95.14	288	13	1	1	287	1	288	0	535
61	A105_07223T0	Z519_05800T0	95.14	391	19	0	1	391	1	391	0	775
1	A105_07541T0	Z519_06104T0	95.14	350	17	0	1	350	1	350	0	670
101	A105_07891T0	Z519_07722T0	95.14	617	30	0	1	617	1	617	0	1238
1	A105_07966T0	Z519_07805T0	95.14	535	26	0	1	535	1	535	0	964
25	A105_08231T0	Z519_09451T0	95.14	555	27	0	1	555	1	555	0	1016
2	A105_09129T0	Z519_05240T0	95.14	391	19	0	1	391	1	391	0	744
1	A105_09627T0	Z519_10578T0	95.14	144	7	0	1	144	1	144	9.00E-101	288
1	A105_11294T0	Z519_02146T0	95.14	185	9	0	1	185	1	185	1.00E-101	293
15	A105_01033T0	Z519_00956T0	95.15	680	31	1	1	680	1	678	0	1319
6	A105_02184T0	Z519_01294T0	95.15	309	15	0	1	309	1	309	0	610
1	A105_02788T0	Z519_07320T0	95.15	392	15	1	1	388	1	392	0	766
1	A105_02834T0	Z519_07365T0	95.15	103	5	0	1	103	1	103	4.00E-53	164
25	A105_04391T0	Z519_02222T0	95.15	227	11	0	1	227	1	227	6.00E-160	445
1	A105_04823T0	Z519_02648T0	95.15	474	23	0	1	474	1	474	0	812
3	A105_05799T0	Z519_04934T0	95.15	680	14	1	1	661	1	680	0	1334
8	A105_07824T0	Z519_07640T0	95.15	454	20	1	6	459	1	452	0	905

1	A105_07990T0	Z519_07826T0	95.15	165	7	1	1	165	1	164	1.00E-102	295
3	A105_08487T0	Z519_05563T0	95.15	433	21	0	1	433	1	433	0	840
10	A105_09073T0	Z519_05184T0	95.15	1073	52	0	1	1073	1	1073	0	2085
1	A105_09745T0	Z519_10476T0	95.15	227	11	0	37	263	88	314	1.00E-150	426
1	A105_09842T0	Z519_10375T0	95.15	165	8	0	1	165	1	165	7.00E-114	323
1	A105_12256T0	Z519_04497T0	95.15	206	10	0	1	206	1	206	1.00E-146	410
40	A105_13159T0	Z519_04365T0	95.15	371	7	1	1	360	1	371	0	666
2	A105_00505T0	Z519_00511T0	95.16	867	40	2	1	866	1	866	0	1657
98	A105_02145T0	Z519_01333T0	95.16	579	28	0	1	579	1	579	0	1134
1	A105_03538T0	Z519_09660T0	95.16	310	15	0	1	310	1	310	0	613
51	A105_03767T0	Z519_03089T0	95.16	372	18	0	1	372	1	372	0	729
3	A105_05096T0	Z519_07986T0	95.16	310	7	1	1	302	1	310	0	612
3	A105_06641T0	Z519_09024T0	95.16	62	3	0	1	62	1	62	3.00E-36	123
3	A105_06793T0	Z519_06712T0	95.16	289	14	0	1	289	1	289	0	553
1	A105_07612T0	Z519_06175T0	95.16	640	31	0	1	640	1	640	0	1252
151	A105_02473T0	Z519_07006T0	95.17	497	23	1	1	496	1	497	0	950
1	A105_03529T0	Z519_09652T0	95.17	373	11	3	52	423	5	371	0	612
2	A105_04982T0	Z519_02806T0	95.17	207	10	0	1	207	1	207	7.00E-134	377
25	A105_06293T0	Z519_10729T0	95.17	601	29	0	1	601	1	601	0	1177
28	A105_06882T0	Z519_06617T0	95.17	373	18	0	1	373	1	373	0	740
6	A105_10558T0	Z519_12586T0	95.17	476	23	0	1	476	1	476	0	923
11	A105_10775T0	Z519_12290T0	95.17	352	17	0	1	352	1	352	0	694
1	A105_11025T0	Z519_06827T0	95.17	745	36	0	1	745	1	745	0	1469
191	A105_11680T0	Z519_08616T0	95.17	269	6	1	1	262	1	269	0	519
2	A105_12195T0	Z519_04554T0	95.17	663	32	0	1	663	1	663	0	1311
1	A105_12455T0	Z519_12656T0	95.17	807	39	0	1	807	1	807	0	1175
3	A105_12621T0	Z519_05420T0	95.17	269	13	0	1	269	1	269	0	514
1	A105_12974T0	Z519_04392T0	95.17	269	12	1	1	269	1	268	0	512
1	A105_02711T0	Z519_07248T0	95.18	353	17	0	23	375	23	375	0	662
24	A105_03104T0	Z519_09957T0	95.18	976	44	1	1	976	1	973	0	1863
25	A105_03113T0	Z519_09966T0	95.18	436	21	0	1	436	45	480	0	844
1	A105_07799T0	Z519_07614T0	95.18	394	19	0	1	394	1	394	0	769
43	A105_09357T0	Z519_01211T0	95.18	249	12	0	1	249	1	249	1.00E-175	486
25	A105_11489T0	Z519_08767T0	95.18	456	22	0	16	471	16	471	0	860
1	A105_11880T0	Z519_01984T0	95.18	436	21	0	1	436	1	436	0	859

84	A105_00233T0	Z519_00231T0	95.19	582	28	0	1	582	1	582	0	1130
1	A105_01798T0	Z519_01666T0	95.19	374	18	0	1	374	1	374	0	745
120	A105_02908T0	Z519_12769T0	95.19	270	13	0	1	270	1	270	2.00E-179	498
1	A105_04528T0	Z519_02354T0	95.19	457	22	0	1	457	43	499	0	857
6	A105_04631T0	Z519_02458T0	95.19	187	9	0	1	187	1	187	2.00E-113	324
2	A105_05757T0	Z519_04980T0	95.19	291	14	0	1	291	1	291	0	530
5	A105_05783T0	Z519_04949T0	95.19	582	28	0	66	647	1	582	0	1108
1	A105_06398T0	Z519_10643T0	95.19	540	26	0	1	540	1	540	0	1071
155	A105_07016T0	Z519_06485T0	95.19	540	26	0	1	540	1	540	0	1031
1	A105_08869T0	Z519_03784T0	95.19	624	30	0	1	624	1	624	0	849
1	A105_09939T0	Z519_04208T0	95.19	541	26	0	1	541	1	541	0	991
116	A105_10619T0	Z519_11098T0	95.19	187	9	0	1	187	1	187	1.00E-121	352
1	A105_00042T0	Z519_00042T0	95.2	646	31	0	1	646	1	646	0	715
1	A105_00570T0	Z519_00581T0	95.2	542	25	1	1	542	1	541	0	967
1	A105_00725T0	Z519_00717T0	95.2	417	20	0	1	417	1	417	0	802
1	A105_01826T0	Z519_01638T0	95.2	583	28	0	1	583	1	583	0	1147
115	A105_03771T0	Z519_03093T0	95.2	521	25	0	1	521	1	521	0	1030
2	A105_04516T0	Z519_02343T0	95.2	1063	50	1	1	1062	1	1063	0	1919
165	A105_05866T0	Z519_04868T0	95.2	521	25	0	1	521	1	521	0	1018
2	A105_07479T0	Z519_06045T0	95.2	750	35	1	1	750	1	749	0	1412
1	A105_09027T0	Z519_05132T0	95.2	396	19	0	2	397	1	396	0	767
1	A105_00065T0	Z519_00064T0	95.21	188	9	0	1	188	1	188	6.00E-113	323
1	A105_00177T0	Z519_00179T0	95.21	919	26	1	1	901	1	919	0	1535
1	A105_01493T0	Z519_01921T0	95.21	334	16	0	1	334	1	334	0	538
1	A105_01633T0	Z519_01784T0	95.21	292	9	2	1	288	1	291	0	526
7	A105_03271T0	Z519_10120T0	95.21	355	17	0	1	355	1	355	0	685
1	A105_03877T0	Z519_03195T0	95.21	146	7	0	1	146	47	192	1.00E-96	279
12	A105_04234T0	Z519_03513T0	95.21	376	18	0	1	376	1	376	0	731
8	A105_11197T0	Z519_08885T0	95.21	376	18	0	1	376	1	376	0	702
14	A105_11335T0	Z519_02124T0	95.21	960	46	0	1	960	1	960	0	1884
1	A105_11549T0	Z519_11547T0	95.21	710	34	0	1	710	1	710	0	1203
7	A105_12521T0	Z519_02853T0	95.21	585	28	0	1	585	99	683	0	1145
3	A105_00337T0	Z519_00342T0	95.22	586	28	0	1	586	1	586	0	1072
1	A105_01216T0	Z519_08484T0	95.22	272	11	1	1	272	1	270	2.00E-150	427
1	A105_02347T0	Z519_11624T0	95.22	523	23	1	1	523	1	521	0	954

4	A105_04592T0	Z519_02420T0	95.22	942	45	0	1	942	1	942	0	1741
99	A105_05841T0	Z519_04891T0	95.22	669	32	0	1	669	1	669	0	1340
3	A105_06859T0	Z519_06643T0	95.22	293	13	1	56	348	8	299	0	518
24	A105_08891T0	Z519_03762T0	95.22	460	22	0	1	460	1	460	0	872
17	A105_09078T0	Z519_05189T0	95.22	648	28	1	1	648	1	645	0	1164
47	A105_13178T0	Z519_04344T0	95.22	586	28	0	1	586	1	586	0	1119
5	A105_01378T0	Z519_11891T0	95.23	440	20	1	1	440	1	439	0	871
48	A105_01389T0	Z519_11881T0	95.23	629	30	0	1	629	1	629	0	1246
5	A105_02695T0	Z519_07228T0	95.23	1195	57	0	1	1195	1	1195	0	2356
2	A105_03683T0	Z519_03002T0	95.23	419	20	0	1	419	1	419	0	768
72	A105_03729T0	Z519_03049T0	95.23	440	21	0	1	440	1	440	0	875
2	A105_04934T0	Z519_02758T0	95.23	797	38	0	1	797	1	797	0	1548
2	A105_06674T0	Z519_08995T0	95.23	1362	60	1	1	1357	1	1362	0	2577
2	A105_10088T0	Z519_04250T0	95.23	398	19	0	1	398	1	398	0	742
40	A105_12513T0	Z519_02850T0	95.23	377	18	0	1	377	1	377	0	742
1	A105_00081T0	Z519_00080T0	95.24	231	11	0	1	231	1	231	2.00E-133	378
17	A105_00287T0	Z519_00296T0	95.24	231	11	0	1	231	1	231	2.00E-159	457
1	A105_00899T0	Z519_00848T0	95.24	1388	66	0	1	1388	1	1388	0	2666
1	A105_01831T0	Z519_01632T0	95.24	273	12	1	1	273	1	272	3.00E-167	467
74	A105_02872T0	Z519_07403T0	95.24	315	15	0	70	384	1	315	0	613
1	A105_03057T0	Z519_11981T0	95.24	210	9	1	1	210	1	209	3.00E-124	353
4	A105_03185T0	Z519_10036T0	95.24	210	10	0	1	210	1	210	3.00E-150	420
23	A105_03281T0	Z519_10129T0	95.24	567	27	0	1	567	207	773	0	1139
1	A105_03982T0	Z519_03280T0	95.24	42	2	0	1	42	1	42	5.00E-19	74.7
4	A105_04151T0	Z519_03431T0	95.24	273	13	0	1	273	1	273	0	541
1	A105_04721T0	Z519_02551T0	95.24	63	3	0	1	63	1	63	1.00E-37	121
60	A105_05178T0	Z519_08067T0	95.24	441	21	0	1	441	1	441	0	872
2	A105_05788T0	Z519_04945T0	95.24	399	19	0	28	426	76	474	0	732
1	A105_06044T0	Z519_04695T0	95.24	294	14	0	1	294	1	294	0	577
1	A105_06227T0	Z519_10784T0	95.24	42	2	0	1	42	1	42	2.00E-22	82
29	A105_06294T0	Z519_10728T0	95.24	630	30	0	1	630	1	630	0	1216
2	A105_06693T0	Z519_08976T0	95.24	147	7	0	1	147	1	147	1.00E-97	281
1	A105_07495T0	Z519_06061T0	95.24	63	3	0	2	64	3	65	2.00E-37	120
4	A105_09526T0	Z519_01061T0	95.24	903	43	0	1	903	1	903	0	1753
4	A105_10464T0	Z519_11341T0	95.24	399	18	1	1	399	1	398	0	776

1	A105_10514T0	Z519_12629T0	95.24	231	11	0	1	231	1	231	3.00E-164	456
2	A105_13395T0	Z519_04230T0	95.24	252	12	0	1	252	1	252	0	501
27	A105_04321T0	Z519_03598T0	95.25	526	25	0	1	526	1	526	0	953
7	A105_06160T0	Z519_04580T0	95.25	1410	67	0	1	1410	1	1410	0	2736
86	A105_06908T0	Z519_06591T0	95.25	505	23	1	1	505	1	504	0	940
1	A105_09989T0	Z519_04180T0	95.25	358	17	0	1	358	1	358	0	658
2	A105_12367T0	Z519_12452T0	95.25	400	19	0	1	400	1	400	0	794
1	A105_00861T0	Z519_00809T0	95.26	1602	73	3	1	1601	1	1600	0	2921
10	A105_01171T0	Z519_08439T0	95.26	548	26	0	1	548	1	548	0	1043
1	A105_02974T0	Z519_12055T0	95.26	190	9	0	1	190	12	201	3.00E-131	369
1	A105_03547T0	Z519_09670T0	95.26	464	22	0	1	464	1	464	0	879
1	A105_05287T0	Z519_08161T0	95.26	1013	48	0	1	1013	1	1013	0	1945
3	A105_05451T0	Z519_08328T0	95.26	464	17	1	1	464	1	459	0	853
5	A105_06135T0	Z519_04602T0	95.26	527	25	0	1	527	34	560	0	998
11	A105_08148T0	Z519_09371T0	95.26	908	29	3	7	910	56	953	0	1730
5	A105_08897T0	Z519_03756T0	95.26	612	29	0	1	612	1	612	0	1217
2	A105_10364T0	Z519_11038T0	95.26	422	20	0	1	422	1	422	0	823
21	A105_10547T0	Z519_12596T0	95.26	359	17	0	1	359	1	359	0	708
61	A105_11050T0	Z519_06851T0	95.26	274	13	0	1	274	1	274	0	543
3	A105_11892T0	Z519_01995T0	95.26	506	24	0	1	506	52	557	0	997
3	A105_00520T0	Z519_00527T0	95.27	465	17	1	1	460	1	465	0	843
1	A105_03112T0	Z519_09965T0	95.27	507	21	2	1	507	1	504	0	920
5	A105_03497T0	Z519_09621T0	95.27	486	23	0	1	486	1	486	0	955
1	A105_04414T0	Z519_02245T0	95.27	317	12	1	1	317	306	619	0	600
2	A105_04869T0	Z519_02693T0	95.27	824	39	0	14	837	1	824	0	1474
1	A105_05106T0	Z519_07996T0	95.27	1755	83	0	1	1755	1	1755	0	3315
3	A105_05649T0	Z519_11200T0	95.27	148	7	0	1	148	1	148	4.00E-103	294
96	A105_07873T0	Z519_07703T0	95.27	655	31	0	1	655	1	655	0	1293
1	A105_09021T0	Z519_05126T0	95.27	275	13	0	1	275	1	275	0	534
9	A105_10446T0	Z519_11322T0	95.27	275	11	1	1	273	1	275	0	517
1	A105_00711T0	Z519_00705T0	95.28	318	14	1	1	318	1	317	0	629
47	A105_02019T0	Z519_01438T0	95.28	424	20	0	1	424	1	424	0	810
4	A105_02249T0	Z519_11730T0	95.28	1017	48	0	1	1017	1	1017	0	1903
52	A105_04297T0	Z519_03577T0	95.28	445	21	0	1	445	1	445	0	865
1	A105_05311T0	Z519_08186T0	95.28	1186	56	0	1	1186	1	1186	0	2226

6	A105_05476T0	Z519_08351T0	95.28	381	17	1	1	381	1	380	0	745
31	A105_06226T0	Z519_10785T0	95.28	339	16	0	1	339	1	339	0	647
5	A105_06828T0	Z519_06673T0	95.28	318	15	0	1	318	14	331	0	627
1	A105_07109T0	Z519_06391T0	95.28	233	11	0	1	233	1	233	1.00E-155	434
1	A105_07484T0	Z519_06050T0	95.28	360	17	0	1	360	1	360	0	655
44	A105_08603T0	Z519_04046T0	95.28	487	23	0	1	487	1	487	0	939
1	A105_11819T0	Z519_01926T0	95.28	339	16	0	1	339	1	339	0	666
8	A105_11913T0	Z519_02016T0	95.28	254	12	0	1	254	1	254	6.00E-179	495
34	A105_12193T0	Z519_04556T0	95.28	445	21	0	1	445	1	445	0	883
4	A105_00184T0	Z519_00187T0	95.29	340	15	1	21	359	59	398	0	662
2	A105_01440T0	Z519_11828T0	95.29	722	34	0	1	722	1	722	0	1364
1	A105_01535T0	Z519_01885T0	95.29	403	19	0	1	403	1	403	0	791
47	A105_01694T0	Z519_01726T0	95.29	616	29	0	1	616	50	665	0	1228
58	A105_02331T0	Z519_11643T0	95.29	850	37	2	1	850	1	847	0	1540
41	A105_03004T0	Z519_12025T0	95.29	488	22	1	1	487	1	488	0	951
70	A105_03710T0	Z519_03029T0	95.29	595	28	0	1	595	1	595	0	1154
6	A105_04594T0	Z519_02422T0	95.29	403	19	0	1	403	104	506	0	806
3	A105_06661T0	Z519_09008T0	95.29	785	37	0	1	785	1	785	0	1528
16	A105_08183T0	Z519_09406T0	95.29	276	13	0	1	276	1	276	0	511
28	A105_08567T0	Z519_04077T0	95.29	594	28	0	1	594	1	594	0	1168
3	A105_10039T0	Z519_04127T0	95.29	276	13	0	1	276	1	276	0	552
2	A105_10760T0	Z519_09950T0	95.29	276	13	0	1	276	1	276	0	539
1	A105_11045T0	Z519_06846T0	95.29	446	21	0	1	446	1	446	0	847
1	A105_11060T0	Z519_06861T0	95.29	340	16	0	1	340	1	340	0	668
45	A105_12244T0	Z519_04508T0	95.29	1423	67	0	1	1423	1	1423	0	2759
10	A105_03501T0	Z519_09625T0	95.3	575	1	1	1	549	1	575	0	1112
5	A105_03629T0	Z519_09757T0	95.3	489	23	0	1	489	1	489	0	979
3	A105_05408T0	Z519_08282T0	95.3	766	36	0	1	766	1	766	0	1511
1	A105_05891T0	Z519_04843T0	95.3	362	17	0	1	362	1	362	0	693
2	A105_08789T0	Z519_03869T0	95.3	319	15	0	1	319	1	319	0	624
9	A105_09581T0	Z519_01015T0	95.3	362	17	0	1	362	1	362	0	716
4	A105_10287T0	Z519_10953T0	95.3	383	18	0	1	383	1	383	0	722
1	A105_10492T0	Z519_11368T0	95.3	234	10	1	1	233	1	234	3.00E-163	454
1	A105_12383T0	Z519_12467T0	95.3	1254	59	0	1	1254	1	1254	0	2264
1	A105_13306T0	Z519_05027T0	95.3	489	23	0	1	489	1	489	0	948

1	A105_03052T0	Z519_11985T0	95.31	426	20	0	1	426	54	479	0	748
2	A105_04677T0	Z519_02506T0	95.31	469	22	0	1	469	36	504	0	902
1	A105_08707T0	Z519_03952T0	95.31	384	18	0	1	384	1	384	0	726
105	A105_09117T0	Z519_05228T0	95.31	533	25	0	1	533	1	533	0	1022
4	A105_10191T0	Z519_10856T0	95.31	256	12	0	1	256	1	256	9.00E-180	498
4	A105_11793T0	Z519_02888T0	95.31	213	10	0	1	213	1	213	8.00E-148	413
13	A105_12081T0	Z519_12342T0	95.31	213	10	0	1	213	1	213	4.00E-145	416
1	A105_00222T0	Z519_00220T0	95.32	299	14	0	1	299	1	299	0	571
113	A105_01005T0	Z519_00931T0	95.32	278	13	0	1	278	1	278	0	510
4	A105_04689T0	Z519_02518T0	95.32	790	37	0	1	790	106	895	0	1541
1	A105_05067T0	Z519_07957T0	95.32	770	35	1	1	769	1	770	0	1350
5	A105_05099T0	Z519_07989T0	95.32	278	13	0	1	278	1	278	0	523
8	A105_05507T0	Z519_03621T0	95.32	406	13	1	1	400	1	406	0	807
6	A105_06732T0	Z519_06777T0	95.32	278	13	0	1	278	1	278	0	556
10	A105_08064T0	Z519_07899T0	95.32	556	26	0	1	556	1	556	0	1070
11	A105_08825T0	Z519_03829T0	95.32	449	21	0	1	449	1	449	0	748
2	A105_11087T0	Z519_06886T0	95.32	556	26	0	1	556	1	556	0	1097
10	A105_11499T0	Z519_08777T0	95.32	556	25	1	30	585	28	582	0	1050
10	A105_11642T0	Z519_08656T0	95.32	598	28	0	1	598	2	599	0	1159
2	A105_12937T0	Z519_11076T0	95.32	427	20	0	1	427	1	427	0	841
1	A105_02696T0	Z519_07229T0	95.33	471	21	1	1	470	1	471	0	918
2	A105_03754T0	Z519_03078T0	95.33	706	31	1	1	704	1	706	0	1383
2	A105_04229T0	Z519_03509T0	95.33	492	23	0	1	492	1	492	0	967
1	A105_05266T0	Z519_08139T0	95.33	107	5	0	1	107	1	107	4.00E-73	215
2	A105_06561T0	Z519_09104T0	95.33	1178	52	2	1	1178	1	1175	0	2167
44	A105_07886T0	Z519_07717T0	95.33	428	20	0	1	428	95	522	0	844
1	A105_08201T0	Z519_09425T0	95.33	321	12	1	1	321	1	318	0	596
2	A105_09279T0	Z519_01287T0	95.33	599	28	0	1	599	1	599	0	1179
1	A105_10398T0	Z519_11275T0	95.33	364	17	0	73	436	1	364	0	666
1	A105_10467T0	Z519_11344T0	95.33	557	26	0	8	564	27	583	0	1097
2	A105_10504T0	Z519_11382T0	95.33	214	10	0	1	214	1	214	1.00E-152	429
2	A105_12545T0	Z519_05504T0	95.33	1198	54	1	1	1196	1	1198	0	2350
2	A105_00103T0	Z519_00103T0	95.34	365	16	1	1	365	1	364	0	671
3	A105_00135T0	Z519_00136T0	95.34	729	34	0	1	729	1	729	0	1402
16	A105_00395T0	Z519_00397T0	95.34	558	26	0	1	558	1	558	0	1068

3	A105_01125T0	Z519_08398T0	95.34	580	22	1	1	580	1	575	0	1156
20	A105_01605T0	Z519_01813T0	95.34	279	13	0	1	279	1	279	0	518
5	A105_02222T0	Z519_11753T0	95.34	472	22	0	1	472	1	472	0	921
1	A105_02306T0	Z519_11670T0	95.34	386	18	0	1	386	1	386	0	671
1	A105_06660T0	Z519_09009T0	95.34	322	15	0	1	322	1	322	0	623
2	A105_07079T0	Z519_06422T0	95.34	193	9	0	26	218	1	193	4.00E-128	362
1	A105_11109T0	Z519_06911T0	95.34	1417	66	0	1	1417	1	1417	0	2747
1	A105_11710T0	Z519_02969T0	95.34	451	21	0	1	451	1	451	0	875
10	A105_11914T0	Z519_02017T0	95.34	279	13	0	1	279	1	279	0	561
1	A105_12835T0	Z519_07438T0	95.34	365	15	1	1	365	136	498	0	709
1	A105_12951T0	Z519_11090T0	95.34	708	33	0	1	708	1	708	0	1338
5	A105_00487T0	Z519_00494T0	95.35	968	36	2	1	959	1	968	0	1836
1	A105_01314T0	Z519_08578T0	95.35	172	8	0	1	172	1	172	1.00E-108	310
2	A105_02652T0	Z519_07184T0	95.35	838	19	2	1	819	1	837	0	1627
2	A105_02734T0	Z519_07267T0	95.35	882	38	1	1	882	1	879	0	1712
2	A105_02907T0	Z519_12770T0	95.35	1183	47	3	1	1178	1	1180	0	1943
2	A105_03035T0	Z519_12002T0	95.35	344	16	0	1	344	1	344	0	647
1	A105_04758T0	Z519_02586T0	95.35	538	25	0	1	538	277	814	0	1066
1	A105_09633T0	Z519_10571T0	95.35	924	43	0	1	924	273	1196	0	1580
1	A105_10705T0	Z519_09891T0	95.35	430	18	1	1	430	1	428	0	787
1	A105_11040T0	Z519_06840T0	95.35	409	19	0	1	409	1	409	0	714
5	A105_11610T0	Z519_08686T0	95.35	495	23	0	1	495	1	495	0	920
8	A105_12190T0	Z519_04559T0	95.35	387	18	0	1	387	1	387	0	761
5	A105_12343T0	Z519_12429T0	95.35	709	33	0	1	709	1	709	0	1379
42	A105_00004T0	Z519_00004T0	95.36	517	24	0	1	517	262	778	0	1026
1	A105_01108T0	Z519_08382T0	95.36	604	27	1	1	604	1	603	0	1027
1	A105_01518T0	Z519_01899T0	95.36	237	11	0	1	237	1	237	1.00E-158	442
2	A105_02692T0	Z519_07225T0	95.36	431	20	0	21	451	3	433	0	837
1	A105_03708T0	Z519_03027T0	95.36	496	22	1	1	495	1	496	0	927
1	A105_03801T0	Z519_03122T0	95.36	1422	64	2	53	1473	71	1491	0	2657
2	A105_04572T0	Z519_02399T0	95.36	302	8	1	1	302	1	296	0	508
3	A105_04975T0	Z519_02799T0	95.36	647	30	0	1	647	40	686	0	1264
1	A105_07001T0	Z519_06499T0	95.36	151	7	0	1	151	1	151	1.00E-100	288
15	A105_07027T0	Z519_06474T0	95.36	732	33	1	1	732	1	731	0	1396
1	A105_07867T0	Z519_07698T0	95.36	280	13	0	1	280	1	280	0	543

3	A105_08615T0	Z519_04034T0	95.36	323	15	0	1	323	1	323	0	639
2	A105_08752T0	Z519_03904T0	95.36	992	39	3	1	992	1	985	0	1862
2	A105_09892T0	Z519_10325T0	95.36	388	18	0	1	388	30	417	0	749
87	A105_10549T0	Z519_12593T0	95.36	625	24	1	1	620	1	625	0	1152
5	A105_11282T0	Z519_08796T0	95.36	582	27	0	1	582	1	582	0	1142
12	A105_11686T0	Z519_08609T0	95.36	194	9	0	1	194	1	194	6.00E-139	389
1	A105_01795T0	Z519_01669T0	95.37	497	23	0	1	497	1	497	0	955
79	A105_02132T0	Z519_01346T0	95.37	561	25	1	27	587	64	623	0	1092
1	A105_02493T0	Z519_07026T0	95.37	454	20	1	1	453	1	454	0	825
3	A105_03825T0	Z519_03143T0	95.37	777	34	1	1	777	1	775	0	1527
1	A105_11361T0	Z519_02097T0	95.37	108	5	0	1	108	1	108	4.00E-71	210
15	A105_11655T0	Z519_08644T0	95.37	1597	73	1	1	1597	1	1596	0	3104
8	A105_11670T0	Z519_08626T0	95.37	497	23	0	1	497	1	497	0	976
7	A105_11719T0	Z519_02960T0	95.37	561	25	1	1	560	1	561	0	1090
1	A105_11948T0	Z519_05785T0	95.37	669	30	1	1	668	1	669	0	1187
1	A105_12821T0	Z519_12539T0	95.37	410	19	0	1	410	1	410	0	822
78	A105_00201T0	Z519_00203T0	95.38	671	31	0	1	671	1	671	0	1256
7	A105_00938T0	Z519_00873T0	95.38	238	11	0	1	238	1	238	4.00E-169	469
32	A105_01486T0	Z519_11783T0	95.38	368	17	0	1	368	1	368	0	700
2	A105_01929T0	Z519_01531T0	95.38	628	29	0	1	628	1	628	0	1196
11	A105_02212T0	Z519_11763T0	95.38	476	11	1	1	476	1	465	0	882
27	A105_02996T0	Z519_12033T0	95.38	411	19	0	1	411	1	411	0	810
2	A105_04095T0	Z519_03368T0	95.38	346	16	0	1	346	1	346	0	649
1	A105_06666T0	Z519_09003T0	95.38	584	10	1	1	584	1	567	0	1091
6	A105_07213T0	Z519_05791T0	95.38	1234	38	1	1	1234	5	1219	0	2430
1	A105_07348T0	Z519_05921T0	95.38	650	28	1	1	648	1	650	0	1186
7	A105_07632T0	Z519_06194T0	95.38	519	24	0	1	519	1	519	0	1040
16	A105_07884T0	Z519_07715T0	95.38	130	6	0	1	130	1	130	2.00E-85	248
7	A105_08217T0	Z519_09439T0	95.38	390	18	0	1	390	1	390	0	728
11	A105_08269T0	Z519_09491T0	95.38	628	29	0	12	639	17	644	0	1210
9	A105_10952T0	Z519_11490T0	95.38	758	22	1	1	758	1	745	0	1504
1	A105_11037T0	Z519_06837T0	95.38	973	45	0	1	973	1	973	0	1873
1	A105_11263T0	Z519_08814T0	95.38	1018	47	0	1	1018	1	1018	0	1952
4	A105_00285T0	Z519_00294T0	95.39	282	13	0	1	282	1	282	0	558
98	A105_02251T0	Z519_11728T0	95.39	846	37	1	1	846	1	844	0	1622

3	A105_02792T0	Z519_07324T0	95.39	152	7	0	1	152	1	152	5.00E-104	297
5	A105_02853T0	Z519_07384T0	95.39	586	27	0	1	586	1	586	0	1182
20	A105_03480T0	Z519_09606T0	95.39	781	35	1	1	781	1	780	0	1554
1	A105_07420T0	Z519_05992T0	95.39	217	10	0	1	217	1	217	2.00E-140	395
1	A105_08875T0	Z519_03779T0	95.39	282	13	0	1	282	1	282	0	550
1	A105_08965T0	Z519_05068T0	95.39	369	14	1	1	366	1	369	0	605
1	A105_09032T0	Z519_05137T0	95.39	434	20	0	1	434	1	434	0	850
7	A105_10640T0	Z519_09828T0	95.39	412	19	0	1	412	1	412	0	798
31	A105_00268T0	Z519_00277T0	95.4	457	2	1	1	457	1	438	0	863
2	A105_01617T0	Z519_01800T0	95.4	543	25	0	1	543	1	543	0	1044
1	A105_03152T0	Z519_10004T0	95.4	391	18	0	1	391	1	391	0	725
1	A105_05988T0	Z519_04748T0	95.4	435	20	0	1	435	1	435	0	862
2	A105_06412T0	Z519_10629T0	95.4	261	12	0	1	261	1	261	0	509
2	A105_07102T0	Z519_06398T0	95.4	565	18	1	1	557	1	565	0	1117
80	A105_10710T0	Z519_09898T0	95.4	1262	58	0	1	1262	1	1262	0	2432
1	A105_11459T0	Z519_08742T0	95.4	652	30	0	1	652	1	652	0	1274
13	A105_12861T0	Z519_07464T0	95.4	326	15	0	1	326	1	326	0	657
1	A105_00498T0	Z519_00503T0	95.41	218	10	0	98	315	1	218	1.00E-152	430
6	A105_00629T0	Z519_00640T0	95.41	109	5	0	1	109	1	109	1.00E-70	220
32	A105_03722T0	Z519_03042T0	95.41	392	14	2	16	407	16	403	0	682
1	A105_03894T0	Z519_03209T0	95.41	327	15	0	1	327	1	327	0	641
1	A105_04584T0	Z519_02412T0	95.41	327	14	1	1	327	1	326	3.00E-172	484
1	A105_04659T0	Z519_02488T0	95.41	196	9	0	1	196	1	196	3.00E-136	382
1	A105_04693T0	Z519_02522T0	95.41	196	9	0	1	196	1	196	3.00E-134	377
57	A105_05942T0	Z519_04792T0	95.41	458	21	0	1	458	1	458	0	907
1	A105_06600T0	Z519_09064T0	95.41	523	24	0	1	523	78	600	0	850
1	A105_06867T0	Z519_06635T0	95.41	414	19	0	1	414	1	414	0	812
41	A105_07746T0	Z519_07559T0	95.41	392	17	1	1	391	1	392	0	732
10	A105_09631T0	Z519_10574T0	95.41	610	26	1	28	637	1	608	0	1201
27	A105_10925T0	Z519_11464T0	95.41	937	41	1	1	935	1	937	0	1779
2	A105_11867T0	Z519_01971T0	95.41	893	40	1	1	893	1	892	0	1653
1	A105_11987T0	Z519_05745T0	95.41	327	15	0	5	331	21	347	0	611
13	A105_12126T0	Z519_12386T0	95.41	697	31	1	1	697	1	696	0	1308
1	A105_12930T0	Z519_11068T0	95.41	327	15	0	1	327	1	327	0	644
3	A105_00195T0	Z519_00197T0	95.42	415	19	0	1	415	1	415	0	832

2	A105_03384T0	Z519_10205T0	95.42	262	12	0	3	264	1	262	0	517
1	A105_03441T0	Z519_10263T0	95.42	131	6	0	1	131	1	131	1.00E-88	256
1	A105_04961T0	Z519_02785T0	95.42	393	18	0	1	393	1	393	0	785
121	A105_06419T0	Z519_10622T0	95.42	568	26	0	1	568	7	574	0	1090
2	A105_06750T0	Z519_06759T0	95.42	153	7	0	1	153	13	165	1.00E-104	299
3	A105_07005T0	Z519_06495T0	95.42	240	11	0	1	240	1	240	1.00E-170	473
2	A105_07826T0	Z519_07642T0	95.42	764	35	0	1	764	1	764	0	1443
6	A105_07874T0	Z519_07704T0	95.42	437	19	1	1	436	1	437	0	815
1	A105_08179T0	Z519_09403T0	95.42	698	30	2	1	698	1	696	0	1316
8	A105_08312T0	Z519_09527T0	95.42	306	14	0	1	306	1	306	0	588
1	A105_08695T0	Z519_03964T0	95.42	306	14	0	1	306	1	306	0	610
4	A105_08867T0	Z519_03786T0	95.42	786	36	0	1	786	1	786	0	1539
2	A105_09884T0	Z519_10334T0	95.42	153	7	0	1	153	1	153	7.00E-95	274
22	A105_10436T0	Z519_11312T0	95.42	349	16	0	1	349	1	349	0	699
1	A105_11205T0	Z519_08878T0	95.42	743	34	0	1	743	1	743	0	1416
28	A105_11534T0	Z519_11564T0	95.42	393	18	0	1	393	1	393	0	749
5	A105_01102T0	Z519_08376T0	95.43	635	29	0	1	635	1	635	0	1253
73	A105_01734T0	Z519_01703T0	95.43	569	25	1	1	569	1	568	0	1065
2	A105_04652T0	Z519_02478T0	95.43	634	9	1	1	614	1	634	0	1159
2	A105_05225T0	Z519_08099T0	95.43	197	9	0	1	197	1	197	1.00E-138	388
1	A105_07623T0	Z519_06186T0	95.43	634	29	0	1	634	1	634	0	1251
18	A105_07693T0	Z519_07516T0	95.43	591	27	0	1	591	1	591	0	1150
2	A105_11373T0	Z519_02085T0	95.43	460	21	0	1	460	1	460	0	838
1	A105_11558T0	Z519_11538T0	95.43	657	30	0	1	657	1	657	0	1270
62	A105_11725T0	Z519_02954T0	95.43	569	25	1	1	569	1	568	0	1115
3	A105_13404T0	Z519_04235T0	95.43	328	15	0	33	360	358	685	0	657
4	A105_00506T0	Z519_00512T0	95.44	439	20	0	1	439	1	439	0	845
97	A105_01479T0	Z519_11788T0	95.44	636	29	0	1	636	1	636	0	1170
14	A105_01864T0	Z519_01601T0	95.44	263	12	0	1	263	1	263	2.00E-172	479
1	A105_03110T0	Z519_09963T0	95.44	461	20	1	1	461	1	460	0	849
23	A105_03496T0	Z519_09620T0	95.44	526	24	0	1	526	1	526	0	1000
1	A105_04173T0	Z519_03451T0	95.44	329	14	1	1	329	1	328	0	641
1	A105_04704T0	Z519_02534T0	95.44	548	25	0	1	548	1	548	0	1050
5	A105_05405T0	Z519_08279T0	95.44	504	23	0	1	504	1	504	0	979
1	A105_05962T0	Z519_04773T0	95.44	570	13	3	1	569	1	558	0	1074

6	A105_06058T0	Z519_04682T0	95.44	351	16	0	1	351	1	351	0	684
1	A105_07429T0	Z519_06001T0	95.44	812	37	0	1	812	73	884	0	1465
6	A105_08163T0	Z519_09387T0	95.44	592	27	0	1	592	1	592	0	1099
16	A105_08639T0	Z519_04019T0	95.44	614	28	0	83	696	1	614	0	1201
49	A105_10516T0	Z519_12627T0	95.44	548	25	0	1	548	1	548	0	1083
10	A105_10731T0	Z519_09919T0	95.44	724	33	0	1	724	1	724	0	1433
27	A105_11297T0	Z519_02143T0	95.44	526	21	1	1	526	1	523	0	1031
78	A105_11967T0	Z519_05765T0	95.44	1075	49	0	1	1075	1	1075	0	2076
5	A105_12412T0	Z519_06265T0	95.44	504	10	2	1	504	1	491	0	984
1	A105_00333T0	Z519_00339T0	95.45	176	8	0	1	176	1	176	9.00E-110	314
31	A105_00943T0	Z519_00876T0	95.45	594	27	0	1	594	1	594	0	1101
1	A105_01457T0	Z519_11811T0	95.45	220	9	1	1	219	1	220	2.00E-123	352
2	A105_03108T0	Z519_09961T0	95.45	637	29	0	28	664	1	637	0	1259
87	A105_03843T0	Z519_03161T0	95.45	550	25	0	1	550	1	550	0	942
1	A105_05116T0	Z519_08006T0	95.45	242	11	0	7	248	1	242	1.00E-172	478
1	A105_05147T0	Z519_08036T0	95.45	198	7	2	29	225	30	226	1.00E-136	385
1	A105_06046T0	Z519_04693T0	95.45	88	4	0	1	88	1	88	2.00E-54	166
23	A105_06891T0	Z519_06608T0	95.45	286	13	0	1	286	1	286	0	568
88	A105_06989T0	Z519_06509T0	95.45	484	22	0	129	612	3	486	0	964
1	A105_07384T0	Z519_05957T0	95.45	440	19	1	1	439	1	440	0	838
5	A105_08457T0	Z519_05595T0	95.45	792	36	0	1	792	1	792	0	1499
11	A105_11016T0	Z519_06813T0	95.45	220	10	0	1	220	1	220	5.00E-155	436
4	A105_11171T0	Z519_08907T0	95.45	1011	46	0	1	1011	1	1011	0	1961
1	A105_11333T0	Z519_02126T0	95.45	462	21	0	1	462	1	462	0	859
102	A105_02200T0	Z519_11777T0	95.46	507	21	2	1	506	1	506	0	1001
1	A105_02213T0	Z519_11762T0	95.46	485	22	0	1	485	1	485	0	973
1	A105_02522T0	Z519_07053T0	95.46	903	40	1	1	902	1	903	0	1604
7	A105_03478T0	Z519_09604T0	95.46	1058	48	0	1	1058	1	1058	0	2047
1	A105_05273T0	Z519_08146T0	95.46	1255	57	0	1	1255	1	1255	0	2418
51	A105_09169T0	Z519_05280T0	95.46	683	30	1	1	683	24	705	0	1321
75	A105_12946T0	Z519_11085T0	95.46	1322	60	0	1	1322	1	1322	0	2554
96	A105_01693T0	Z519_01727T0	95.47	618	27	1	1	618	1	617	0	1236
1	A105_04117T0	Z519_03393T0	95.47	773	35	0	1	773	169	941	0	1431
2	A105_04910T0	Z519_02736T0	95.47	397	18	0	1	397	1	397	0	788
1	A105_04971T0	Z519_02795T0	95.47	640	28	1	1	639	1	640	0	1189

4	A105_05157T0	Z519_08048T0	95.47	265	12	0	1	265	1	265	0	519
103	A105_05244T0	Z519_08116T0	95.47	618	28	0	1	618	1	618	0	1184
4	A105_06406T0	Z519_10635T0	95.47	839	38	0	51	889	3	841	0	1589
3	A105_06706T0	Z519_08963T0	95.47	331	15	0	1	331	1	331	0	662
3	A105_07018T0	Z519_06483T0	95.47	486	15	2	1	486	1	479	0	855
1	A105_00296T0	Z519_00306T0	95.48	310	14	0	1	310	1	310	0	613
3	A105_00866T0	Z519_00815T0	95.48	310	10	1	18	323	10	319	0	572
80	A105_02337T0	Z519_11637T0	95.48	1262	57	0	1	1262	1	1262	0	2457
2	A105_02704T0	Z519_07241T0	95.48	908	40	1	3	910	2	908	0	1729
65	A105_03274T0	Z519_10122T0	95.48	619	27	1	1	618	1	619	0	1224
1	A105_04821T0	Z519_02646T0	95.48	774	33	1	1	772	1	774	0	1473
8	A105_05252T0	Z519_08123T0	95.48	465	20	1	1	464	6	470	0	855
5	A105_05868T0	Z519_04866T0	95.48	332	15	0	1	332	2	333	0	632
1	A105_08390T0	Z519_05652T0	95.48	310	11	1	1	310	1	307	6.00E-178	497
2	A105_09120T0	Z519_05231T0	95.48	575	20	2	1	571	25	597	0	948
1	A105_09701T0	Z519_10506T0	95.48	221	10	0	1	221	1	221	5.00E-138	389
2	A105_10920T0	Z519_11460T0	95.48	420	19	0	1	420	369	788	0	845
1	A105_11566T0	Z519_11530T0	95.48	354	16	0	1	354	6	359	0	635
4	A105_12111T0	Z519_12371T0	95.48	465	21	0	1	465	1	465	0	796
6	A105_00178T0	Z519_00180T0	95.49	377	17	0	1	377	1	377	0	668
9	A105_00227T0	Z519_00225T0	95.49	355	16	0	1	355	1	355	0	667
16	A105_00684T0	Z519_00679T0	95.49	821	20	1	1	804	32	852	0	1580
3	A105_01206T0	Z519_08473T0	95.49	488	22	0	1	488	96	583	0	907
3	A105_02498T0	Z519_07032T0	95.49	488	22	0	1	488	1	488	0	876
5	A105_03608T0	Z519_09736T0	95.49	288	13	0	1	288	1	288	0	577
2	A105_08255T0	Z519_09477T0	95.49	799	36	0	1	799	4	802	0	1595
8	A105_09824T0	Z519_10393T0	95.49	510	23	0	1	510	1	510	0	978
1	A105_10362T0	Z519_11036T0	95.49	244	11	0	1	244	1	244	6.00E-147	414
3	A105_10990T0	Z519_11525T0	95.49	864	39	0	1	864	1	864	0	1721
1	A105_11461T0	Z519_08744T0	95.49	288	13	0	1	288	1	288	2.00E-171	479
1	A105_00502T0	Z519_00508T0	95.5	333	5	1	1	323	1	333	0	631
1	A105_01993T0	Z519_01467T0	95.5	378	17	0	1	378	1	378	0	749
4	A105_03352T0	Z519_10176T0	95.5	111	5	0	2	112	15	125	1.00E-73	217
32	A105_04359T0	Z519_02184T0	95.5	689	31	0	1	689	1	689	0	1332
1	A105_04384T0	Z519_02211T0	95.5	578	26	0	1	578	1	578	0	1121

18	A105_06890T0	Z519_06609T0	95.5	666	30	0	1	666	1	666	0	1328
1	A105_07899T0	Z519_07730T0	95.5	311	14	0	1	311	1	311	0	618
1	A105_08575T0	Z519_04068T0	95.5	200	9	0	1	200	1	200	1.00E-138	389
1	A105_08606T0	Z519_04043T0	95.5	667	30	0	1	667	1	667	0	1317
99	A105_09055T0	Z519_05167T0	95.5	622	28	0	1	622	1	622	0	1232
16	A105_09619T0	Z519_10584T0	95.5	333	15	0	1	333	1	333	0	622
1	A105_10552T0	Z519_12591T0	95.5	333	15	0	1	333	1	333	0	596
3	A105_11357T0	Z519_02101T0	95.5	1089	49	0	1	1089	2	1090	0	2048
1	A105_11591T0	Z519_08705T0	95.5	311	14	0	1	311	1	311	0	615
87	A105_12128T0	Z519_12388T0	95.5	289	13	0	1	289	1	289	0	563
7	A105_13183T0	Z519_04339T0	95.5	689	31	0	1	689	9	697	0	1367
2	A105_00460T0	Z519_00467T0	95.51	245	8	1	1	245	1	242	1.00E-171	476
1	A105_01462T0	Z519_11806T0	95.51	601	27	0	1	601	1	601	0	1161
2	A105_01630T0	Z519_01787T0	95.51	89	3	1	2	90	26	113	9.00E-57	173
156	A105_03764T0	Z519_03086T0	95.51	267	12	0	1	267	1	267	0	528
1	A105_03859T0	Z519_03177T0	95.51	601	27	0	1	601	1	601	0	1192
1	A105_04451T0	Z519_02283T0	95.51	423	19	0	1	423	1	423	0	687
16	A105_04788T0	Z519_02615T0	95.51	401	18	0	19	419	11	411	0	809
5	A105_05729T0	Z519_11119T0	95.51	356	16	0	1	356	1	356	0	705
5	A105_06318T0	Z519_10707T0	95.51	935	41	1	1	935	1	934	0	1852
84	A105_07872T0	Z519_07702T0	95.51	468	19	1	1	466	1	468	0	903
1	A105_08248T0	Z519_09469T0	95.51	535	24	0	1	535	1	535	0	1020
23	A105_10312T0	Z519_10977T0	95.51	623	28	0	55	677	1	623	0	1222
28	A105_10347T0	Z519_11018T0	95.51	535	24	0	1	535	1	535	0	1061
170	A105_10727T0	Z519_09915T0	95.51	379	17	0	1	379	1	379	0	727
1	A105_10825T0	Z519_12243T0	95.51	267	12	0	1	267	1	267	0	533
1	A105_11286T0	Z519_02154T0	95.51	557	25	0	1	557	1	557	0	1107
1	A105_12342T0	Z519_12428T0	95.51	178	8	0	23	200	92	269	1.00E-121	348
169	A105_01026T0	Z519_00949T0	95.52	491	22	0	1	491	1	491	0	939
3	A105_02333T0	Z519_11641T0	95.52	201	9	0	1	201	1	201	3.00E-139	390
1	A105_04764T0	Z519_02591T0	95.52	715	32	0	1	715	1	715	0	1404
151	A105_05741T0	Z519_05001T0	95.52	581	26	0	1	581	1	581	0	1139
23	A105_06286T0	Z519_10736T0	95.52	1228	55	0	1	1228	1	1228	0	2337
1	A105_06583T0	Z519_09081T0	95.52	134	6	0	1	134	1	134	6.00E-91	262
13	A105_10082T0	Z519_04087T0	95.52	424	16	1	78	501	5	425	0	813

3	A105_11930T0	Z519_02029T0	95.52	625	28	0	1	625	1	625	0	1179
1	A105_12080T0	Z519_12342T0	95.52	223	10	0	1	223	238	460	1.00E-157	448
1	A105_12349T0	Z519_12434T0	95.52	803	36	0	1	803	1	803	0	1504
2	A105_00667T0	Z519_00662T0	95.53	694	31	0	1	694	1	694	0	1258
1	A105_01279T0	Z519_08544T0	95.53	313	14	0	1	313	1	313	0	610
3	A105_03134T0	Z519_09987T0	95.53	627	19	2	1	618	1	627	0	1115
4	A105_03481T0	Z519_09607T0	95.53	179	8	0	1	179	1	179	4.00E-124	350
10	A105_04495T0	Z519_02322T0	95.53	806	36	0	1	806	1	806	0	1538
1	A105_05295T0	Z519_08169T0	95.53	962	40	2	1309	2269	1353	2312	0	1294
1	A105_05467T0	Z519_08343T0	95.53	179	8	0	1	179	1	179	9.00E-77	230
1	A105_07398T0	Z519_05970T0	95.53	626	28	0	1	626	1	626	0	1249
4	A105_08340T0	Z519_09554T0	95.53	425	19	0	1	425	1	425	0	846
1	A105_09636T0	Z519_10568T0	95.53	246	11	0	1	246	1	246	1.00E-172	478
1	A105_11233T0	Z519_08847T0	95.53	716	32	0	1	716	1	716	0	1388
1	A105_11388T0	Z519_02069T0	95.53	313	14	0	1	313	1	313	0	625
1	A105_11976T0	Z519_05756T0	95.53	380	17	0	1	380	4	383	0	729
2	A105_12983T0	Z519_04400T0	95.53	1028	46	0	1	1028	1	1028	0	2039
4	A105_00486T0	Z519_00493T0	95.54	448	20	0	8	455	24	471	0	892
2	A105_01285T0	Z519_08550T0	95.54	202	9	0	11	212	1	202	9.00E-145	405
15	A105_01357T0	Z519_11911T0	95.54	336	15	0	1	336	1	336	0	665
6	A105_01432T0	Z519_11836T0	95.54	471	20	1	1	471	8	477	0	785
3	A105_03189T0	Z519_10040T0	95.54	202	9	0	1	202	1	202	4.00E-135	380
1	A105_05883T0	Z519_04851T0	95.54	336	12	2	1	334	20	354	0	617
12	A105_06644T0	Z519_09022T0	95.54	202	9	0	1	202	1	202	4.00E-144	403
1	A105_08691T0	Z519_03968T0	95.54	202	9	0	1	202	1	202	2.00E-140	394
62	A105_09806T0	Z519_10414T0	95.54	426	19	0	1	426	1	426	0	827
155	A105_10433T0	Z519_11308T0	95.54	516	22	1	1	515	1	516	0	956
1	A105_10475T0	Z519_11351T0	95.54	560	25	0	1	560	1	560	0	1068
1	A105_11786T0	Z519_02895T0	95.54	1300	58	0	1	1300	1	1300	0	2553
32	A105_11824T0	Z519_01931T0	95.54	717	30	2	1	717	1	715	0	1254
10	A105_11843T0	Z519_01949T0	95.54	202	9	0	1	202	1	202	1.00E-141	400
16	A105_12163T0	Z519_09280T0	95.54	1391	62	0	1	1391	1	1391	0	2637
12	A105_12691T0	Z519_09817T0	95.54	919	41	0	1	919	1	919	0	1823
49	A105_01785T0	Z519_01679T0	95.55	337	15	0	1	337	47	383	0	665
1	A105_02260T0	Z519_11719T0	95.55	292	13	0	1	292	1	292	0	508

1	A105_03428T0	Z519_10250T0	95.55	247	11	0	1	247	167	413	2.00E-173	487
1	A105_05715T0	Z519_11135T0	95.55	786	32	1	1	786	1	783	0	1484
1	A105_05853T0	Z519_04880T0	95.55	652	29	0	1	652	1	652	0	1192
102	A105_06080T0	Z519_04663T0	95.55	539	24	0	1	539	1	539	0	1071
6	A105_07556T0	Z519_06119T0	95.55	943	36	3	1	941	1	939	0	1504
4	A105_09096T0	Z519_05206T0	95.55	382	17	0	1	382	1	382	0	761
32	A105_09097T0	Z519_05207T0	95.55	337	14	1	1	336	1	337	0	661
4	A105_12701T0	Z519_09806T0	95.55	652	29	0	1	652	1	652	0	1226
1	A105_00104T0	Z519_00104T0	95.56	1260	56	0	1	1260	1	1260	0	2299
1	A105_00356T0	Z519_00354T0	95.56	225	10	0	1	225	1	225	7.00E-158	439
2	A105_00758T0	Z519_00751T0	95.56	947	42	0	1	947	1	947	0	1798
1	A105_02585T0	Z519_07115T0	95.56	585	26	0	1	585	1	585	0	1166
3	A105_03974T0	Z519_03273T0	95.56	495	22	0	1	495	1	495	0	964
3	A105_05813T0	Z519_04920T0	95.56	225	10	0	6	230	76	300	9.00E-163	455
2	A105_06954T0	Z519_06543T0	95.56	180	4	1	1	180	1	176	7.00E-103	296
1	A105_09988T0	Z519_04181T0	95.56	586	26	0	1	586	1	586	0	1089
17	A105_10986T0	Z519_11519T0	95.56	585	26	0	5	589	9	593	0	1169
1	A105_12259T0	Z519_04494T0	95.56	248	11	0	1	248	1	248	2.00E-167	465
10	A105_12727T0	Z519_09787T0	95.56	1283	57	0	1	1283	1	1283	0	2548
4	A105_01987T0	Z519_01472T0	95.57	610	27	0	1	610	1	610	0	1187
4	A105_02117T0	Z519_01363T0	95.57	542	24	0	1	542	1	542	0	1077
5	A105_02420T0	Z519_06948T0	95.57	429	19	0	1	429	1	429	0	861
1	A105_02448T0	Z519_06980T0	95.57	158	7	0	1	158	1	158	2.00E-110	313
1	A105_02515T0	Z519_07049T0	95.57	857	38	0	1	857	1	857	0	1668
1	A105_03399T0	Z519_10220T0	95.57	203	9	0	3	205	19	221	1.00E-147	412
2	A105_03668T0	Z519_02989T0	95.57	519	23	0	1	519	1	519	0	990
1	A105_03867T0	Z519_03185T0	95.57	271	12	0	1	271	1	271	0	530
7	A105_05692T0	Z519_11157T0	95.57	497	22	0	1	497	1	497	0	985
20	A105_06652T0	Z519_09015T0	95.57	429	19	0	1	429	216	644	0	829
4	A105_07987T0	Z519_07823T0	95.57	542	24	0	1	542	1	542	0	1085
15	A105_09545T0	Z519_01051T0	95.57	316	14	0	1	316	1	316	0	585
2	A105_09618T0	Z519_10585T0	95.57	406	18	0	1	406	1	406	0	806
15	A105_09704T0	Z519_10503T0	95.57	542	24	0	1	542	1	542	0	973
3	A105_09857T0	Z519_10360T0	95.57	835	37	0	1	835	1	835	0	1612
5	A105_10566T0	Z519_12578T0	95.57	429	19	0	1	429	1	429	0	821

3	A105_10954T0	Z519_11491T0	95.57	203	9	0	1	203	490	692	2.00E-141	413
17	A105_10984T0	Z519_11518T0	95.57	881	39	0	1	881	1	881	0	1758
1	A105_11161T0	Z519_08915T0	95.57	1129	49	1	1	1129	102	1229	0	2105
2	A105_11372T0	Z519_02086T0	95.57	271	12	0	1	271	1	271	0	512
9	A105_11679T0	Z519_08617T0	95.57	1061	47	0	1	1061	1	1061	0	2102
1	A105_02279T0	Z519_11697T0	95.58	475	21	0	1	475	90	564	0	873
2	A105_03021T0	Z519_12010T0	95.58	339	15	0	1	339	1	339	0	683
2	A105_03581T0	Z519_09705T0	95.58	249	11	0	1	249	1	249	9.00E-179	494
1	A105_04375T0	Z519_02202T0	95.58	249	11	0	1	249	1	249	2.00E-177	491
1	A105_05138T0	Z519_08029T0	95.58	453	20	0	1	453	278	730	0	904
10	A105_05216T0	Z519_08090T0	95.58	634	28	0	8	641	112	745	0	1229
1	A105_07656T0	Z519_06221T0	95.58	362	16	0	1	362	1	362	0	719
1	A105_08713T0	Z519_03946T0	95.58	385	17	0	1	385	1	385	0	773
9	A105_09649T0	Z519_10555T0	95.58	815	35	1	1	815	1	814	0	1469
1	A105_09652T0	Z519_10552T0	95.58	770	34	0	1	770	1	770	0	1534
5	A105_10602T0	Z519_12551T0	95.58	430	19	0	1	430	1	430	0	865
1	A105_11094T0	Z519_06894T0	95.58	770	34	0	1	770	1	770	0	1505
12	A105_11525T0	Z519_11574T0	95.58	407	18	0	1	407	1	407	0	792
1	A105_01071T0	Z519_00993T0	95.59	68	3	0	1	68	1	68	2.00E-41	131
2	A105_03787T0	Z519_03109T0	95.59	908	40	0	1	908	1	908	0	1756
1	A105_05896T0	Z519_04838T0	95.59	681	30	0	1	681	1	681	0	1358
1	A105_07369T0	Z519_05941T0	95.59	657	27	1	1	657	1	655	0	1180
15	A105_07917T0	Z519_07754T0	95.59	476	19	1	1	476	1	474	0	872
1	A105_09521T0	Z519_01067T0	95.59	295	13	0	1	295	58	352	0	566
4	A105_00879T0	Z519_00827T0	95.6	182	8	0	1	182	1	182	1.00E-129	365
1	A105_00926T0	Z519_00861T0	95.6	1637	72	0	1	1637	1	1637	0	3130
64	A105_03733T0	Z519_03053T0	95.6	318	14	0	1	318	1	318	0	624
1	A105_04190T0	Z519_03469T0	95.6	704	30	1	1	704	1	703	0	1372
3	A105_04248T0	Z519_03526T0	95.6	341	12	1	1	341	1	338	0	624
1	A105_04703T0	Z519_02533T0	95.6	477	21	0	1	477	1	477	0	849
11	A105_06529T0	Z519_09135T0	95.6	637	28	0	1	637	1	637	0	1278
1	A105_06581T0	Z519_09084T0	95.6	477	21	0	1	477	1	477	0	932
1	A105_07253T0	Z519_05831T0	95.6	772	28	3	1	770	1	768	0	1434
8	A105_09306T0	Z519_01260T0	95.6	500	22	0	1	500	1	500	0	979
1	A105_09347T0	Z519_01220T0	95.6	250	11	0	1	250	1	250	3.00E-178	493

68	A105_09805T0	Z519_10415T0	95.6	546	23	1	1	545	149	694	0	1072
1	A105_10061T0	Z519_04110T0	95.6	159	7	0	1	159	17	175	2.00E-95	276
5	A105_10235T0	Z519_10901T0	95.6	364	16	0	1	364	1	364	0	726
1	A105_11427T0	Z519_08707T0	95.6	159	7	0	1	159	1	159	1.00E-109	318
5	A105_12347T0	Z519_12432T0	95.6	568	25	0	1	568	1	568	0	1099
77	A105_13224T0	Z519_12511T0	95.6	318	14	0	1	318	1	318	0	630
6	A105_13386T0	Z519_12225T0	95.6	523	19	1	5	527	18	536	0	980
1	A105_00390T0	Z519_00392T0	95.61	228	10	0	1	228	1	228	5.00E-128	364
2	A105_00424T0	Z519_00426T0	95.61	228	10	0	1	228	204	431	2.00E-158	449
1	A105_02248T0	Z519_11731T0	95.61	774	33	1	1	774	1	773	0	1482
1	A105_06171T0	Z519_04569T0	95.61	706	30	1	1	706	1	705	0	1213
2	A105_06314T0	Z519_10710T0	95.61	228	8	1	31	256	58	285	3.00E-156	439
12	A105_06703T0	Z519_08966T0	95.61	456	20	0	1	456	1	456	0	896
30	A105_07324T0	Z519_05896T0	95.61	319	14	0	75	393	1	319	0	635
24	A105_07848T0	Z519_07677T0	95.61	456	20	0	1	456	1	456	0	879
17	A105_08320T0	Z519_09535T0	95.61	478	21	0	1	478	1	478	0	921
1	A105_08784T0	Z519_03873T0	95.61	296	13	0	1	296	1	296	0	590
3	A105_08986T0	Z519_05090T0	95.61	387	16	1	1	387	1	386	0	765
16	A105_09355T0	Z519_01213T0	95.61	478	21	0	1	478	1	478	0	949
2	A105_09446T0	Z519_01140T0	95.61	433	17	1	1	431	1	433	0	733
1	A105_10226T0	Z519_10893T0	95.61	205	9	0	1	205	1	205	8.00E-143	400
1	A105_10895T0	Z519_11435T0	95.61	661	29	0	1	661	1	661	0	1283
13	A105_00286T0	Z519_00295T0	95.62	251	11	0	1	251	1	251	0	503
5	A105_00336T0	Z519_00341T0	95.62	1097	23	1	1	1097	1	1072	0	2132
9	A105_01482T0	Z519_11787T0	95.62	616	24	1	1	616	1	613	0	1200
3	A105_01911T0	Z519_01551T0	95.62	160	7	0	1	160	1	160	8.00E-101	290
4	A105_02318T0	Z519_11657T0	95.62	822	25	1	1	811	1	822	0	1523
1	A105_02375T0	Z519_11597T0	95.62	251	11	0	1	251	1	251	3.00E-156	437
1	A105_02565T0	Z519_07095T0	95.62	754	33	0	1	754	1	754	0	1326
1	A105_05881T0	Z519_04853T0	95.62	251	11	0	11	261	15	265	7.00E-164	458
1	A105_07246T0	Z519_05824T0	95.62	411	16	1	1	411	1	409	0	595
2	A105_08617T0	Z519_04032T0	95.62	707	17	2	1	699	1	701	0	1291
43	A105_10486T0	Z519_11362T0	95.62	617	27	0	19	635	19	635	0	1201
1	A105_12158T0	Z519_09274T0	95.62	548	23	1	1	548	1	547	0	1078
4	A105_01954T0	Z519_01505T0	95.63	504	22	0	1	504	1	504	0	966

1	A105_06580T0	Z519_09085T0	95.63	252	8	1	1	249	1	252	4.00E-165	460
4	A105_07838T0	Z519_07654T0	95.63	183	8	0	1	183	1	183	7.00E-129	362
1	A105_07921T0	Z519_07759T0	95.63	183	8	0	1	183	1	183	4.00E-115	328
1	A105_10395T0	Z519_11271T0	95.63	252	11	0	1	252	1	252	3.00E-177	491
8	A105_12602T0	Z519_05440T0	95.63	481	21	0	1	481	1	481	0	961
9	A105_00110T0	Z519_00111T0	95.64	390	13	1	1	390	1	386	0	771
1	A105_00232T0	Z519_00230T0	95.64	986	43	0	1	986	1	986	0	1726
2	A105_02773T0	Z519_07305T0	95.64	459	20	0	1	459	1	459	0	914
137	A105_04080T0	Z519_03356T0	95.64	528	23	0	1	528	1	528	0	1031
1	A105_05534T0	Z519_03650T0	95.64	802	35	0	1	802	37	838	0	1605
10	A105_07473T0	Z519_06041T0	95.64	321	14	0	1	321	1	321	0	573
4	A105_09080T0	Z519_05191T0	95.64	275	11	1	1	274	1	275	0	524
1	A105_09796T0	Z519_10424T0	95.64	597	26	0	1	597	1	597	0	1186
2	A105_10533T0	Z519_12611T0	95.64	528	23	0	1	528	1	528	0	1051
136	A105_11381T0	Z519_02076T0	95.64	527	21	1	1	525	1	527	0	1040
29	A105_11421T0	Z519_02043T0	95.64	321	14	0	1	321	1	321	0	600
11	A105_13325T0	Z519_05008T0	95.64	275	12	0	1	275	1	275	0	546
2	A105_00462T0	Z519_00469T0	95.65	598	26	0	1	598	1	598	0	1172
2	A105_00534T0	Z519_00541T0	95.65	299	13	0	1	299	1	299	0	586
8	A105_00576T0	Z519_00587T0	95.65	161	7	0	1	161	1	161	8.00E-108	307
3	A105_01140T0	Z519_08410T0	95.65	322	14	0	1	322	1	322	0	628
1	A105_01937T0	Z519_01523T0	95.65	368	16	0	1	368	1	368	0	734
1	A105_03040T0	Z519_11997T0	95.65	1149	50	0	1	1149	1	1149	0	2255
1	A105_03085T0	Z519_11953T0	95.65	299	13	0	1	299	1	299	0	587
1	A105_03298T0	Z519_10146T0	95.65	253	11	0	1	253	1	253	5.00E-144	407
1	A105_04164T0	Z519_03443T0	95.65	345	15	0	1	345	1	345	0	669
10	A105_04496T0	Z519_02323T0	95.65	299	11	1	1	297	1	299	0	573
44	A105_04870T0	Z519_02694T0	95.65	965	41	1	1	965	1	964	0	1905
1	A105_05806T0	Z519_04927T0	95.65	874	36	1	1	872	1	874	0	1598
1	A105_06321T0	Z519_10704T0	95.65	299	13	0	1	299	1	299	0	553
1	A105_06481T0	Z519_09183T0	95.65	253	10	1	1	253	1	252	2.00E-166	464
15	A105_06893T0	Z519_06606T0	95.65	827	32	2	15	841	67	889	0	1644
4	A105_07855T0	Z519_07684T0	95.65	230	10	0	1	230	1	230	1.00E-164	457
3	A105_08157T0	Z519_09381T0	95.65	368	16	0	1	368	1	368	0	733
1	A105_08700T0	Z519_03958T0	95.65	620	24	2	1	620	1	617	0	1148

34	A105_09686T0	Z519_10521T0	95.65	345	7	1	1	337	1	345	0	681
4	A105_09998T0	Z519_04170T0	95.65	276	12	0	1	276	1	276	0	551
2	A105_10934T0	Z519_11473T0	95.65	207	9	0	16	222	289	495	9.00E-133	385
16	A105_10960T0	Z519_11497T0	95.65	391	17	0	1	391	1	391	0	733
2	A105_12135T0	Z519_09248T0	95.65	115	5	0	1	115	1	115	4.00E-77	226
5	A105_12574T0	Z519_05469T0	95.65	368	16	0	1	368	1	368	0	738
1	A105_13233T0	Z519_12519T0	95.65	621	17	3	1	621	1	611	0	898
1	A105_00009T0	Z519_00009T0	95.66	530	22	1	1	529	1	530	0	973
3	A105_00106T0	Z519_00106T0	95.66	737	32	0	1	737	1	737	0	1384
2	A105_01673T0	Z519_01743T0	95.66	761	31	1	1	759	1	761	0	1504
6	A105_02656T0	Z519_07188T0	95.66	369	16	0	1	369	1	369	0	740
25	A105_03239T0	Z519_10088T0	95.66	461	20	0	14	474	1	461	0	834
12	A105_04460T0	Z519_02291T0	95.66	392	17	0	1	392	1	392	0	787
2	A105_05716T0	Z519_11134T0	95.66	438	18	1	1	437	1	438	0	870
1	A105_06753T0	Z519_06753T0	95.66	461	20	0	1	461	1	461	0	879
2	A105_06977T0	Z519_06519T0	95.66	346	15	0	1	346	1	346	0	676
1	A105_11273T0	Z519_08805T0	95.66	438	19	0	1	438	1	438	0	861
19	A105_11799T0	Z519_02885T0	95.66	415	18	0	1	415	1	415	0	798
27	A105_01032T0	Z519_00955T0	95.67	485	20	1	1	485	1	484	0	954
83	A105_01198T0	Z519_08465T0	95.67	577	6	1	30	587	1	577	0	1033
1	A105_01702T0	Z519_01720T0	95.67	254	11	0	1	254	1	254	8.00E-168	467
8	A105_02422T0	Z519_06950T0	95.67	577	25	0	1	577	1	577	0	1155
3	A105_03622T0	Z519_09749T0	95.67	554	24	0	1	554	1	554	0	1048
1	A105_04371T0	Z519_02198T0	95.67	208	9	0	1	208	1	208	7.00E-145	405
8	A105_07055T0	Z519_06447T0	95.67	578	22	1	1	575	1	578	0	1070
1	A105_07388T0	Z519_05961T0	95.67	1086	46	1	1	1086	1	1085	0	2003
5	A105_08539T0	Z519_05512T0	95.67	277	12	0	1	277	1	277	0	558
86	A105_08541T0	Z519_05510T0	95.67	508	22	0	1	508	1	508	0	974
17	A105_11113T0	Z519_06915T0	95.67	786	33	1	1	785	1	786	0	1430
5	A105_11463T0	Z519_08746T0	95.67	323	14	0	1	323	1	323	0	628
1	A105_12087T0	Z519_12347T0	95.67	647	16	2	1	647	1	635	0	1283
8	A105_12245T0	Z519_04507T0	95.67	624	27	0	1	624	1	624	0	1164
1	A105_12396T0	Z519_06279T0	95.67	786	32	1	1	786	1	784	0	1518
12	A105_12419T0	Z519_06258T0	95.67	763	33	0	1	763	1	763	0	1512
149	A105_12918T0	Z519_11057T0	95.67	508	17	2	1	503	1	508	0	993

2	A105_02733T0	Z519_07266T0	95.68	532	23	0	1	532	325	856	0	1006
21	A105_02989T0	Z519_12040T0	95.68	533	23	0	1	533	1	533	0	1064
4	A105_05653T0	Z519_11197T0	95.68	139	6	0	1	139	1	139	4.00E-95	281
1	A105_05759T0	Z519_04978T0	95.68	555	24	0	1	555	1	555	0	1054
1	A105_07626T0	Z519_06189T0	95.68	556	23	1	1	555	54	609	0	1046
1	A105_08011T0	Z519_07847T0	95.68	162	7	0	1	162	1	162	1.00E-93	271
3	A105_09071T0	Z519_05182T0	95.68	694	28	1	1	694	1	692	0	1239
25	A105_09219T0	Z519_05333T0	95.68	486	1	1	1	466	1	486	0	927
6	A105_09563T0	Z519_01033T0	95.68	625	17	1	1	615	1	625	0	1234
9	A105_11042T0	Z519_06842T0	95.68	973	42	0	1	973	192	1164	0	1868
1	A105_12997T0	Z519_04413T0	95.68	764	26	2	1	763	1	758	0	1401
3	A105_01307T0	Z519_08571T0	95.69	1091	41	1	1	1091	1	1085	0	2068
3	A105_01417T0	Z519_11851T0	95.69	952	41	0	1	952	1	952	0	1774
1	A105_02451T0	Z519_06983T0	95.69	348	15	0	1	348	1	348	0	580
9	A105_03835T0	Z519_03153T0	95.69	1253	54	0	1	1253	1	1253	0	2375
1	A105_04481T0	Z519_02310T0	95.69	255	11	0	1	255	1	255	0	504
31	A105_04519T0	Z519_02346T0	95.69	418	18	0	1	418	1	418	0	808
1	A105_04872T0	Z519_02696T0	95.69	1229	53	0	2	1230	4	1232	0	2371
1	A105_06557T0	Z519_09108T0	95.69	255	11	0	1	255	1	255	4.00E-178	493
1	A105_08754T0	Z519_03902T0	95.69	116	5	0	1	116	1	116	5.00E-81	241
1	A105_08796T0	Z519_03858T0	95.69	766	25	1	1	758	1	766	0	1489
30	A105_09933T0	Z519_04214T0	95.69	394	16	1	1	394	1	393	0	752
10	A105_10651T0	Z519_09838T0	95.69	348	15	0	1	348	1	348	0	690
1	A105_11841T0	Z519_01947T0	95.69	1323	57	0	1	1323	1	1323	0	2533
3	A105_04388T0	Z519_02215T0	95.7	465	19	1	1	465	1	464	0	877
135	A105_05915T0	Z519_04819T0	95.7	302	13	0	2	303	13	314	0	595
1	A105_07511T0	Z519_06077T0	95.7	1301	55	1	1	1301	1	1300	0	2425
1	A105_08060T0	Z519_07895T0	95.7	488	21	0	1	488	1	488	0	968
1	A105_10536T0	Z519_12607T0	95.7	279	11	1	1	279	1	278	0	549
10	A105_10576T0	Z519_12569T0	95.7	302	13	0	1	302	4	305	0	607
1	A105_00057T0	Z519_00056T0	95.71	233	10	0	1	233	1	233	6.00E-164	456
1	A105_00586T0	Z519_00596T0	95.71	630	27	0	13	642	13	642	0	1172
7	A105_00696T0	Z519_00690T0	95.71	140	6	0	2	141	175	314	9.00E-94	277
1	A105_01436T0	Z519_11832T0	95.71	885	34	2	1	883	1	883	0	1558
1	A105_01853T0	Z519_01611T0	95.71	163	7	0	1	163	1	163	2.00E-112	320

3	A105_02314T0	Z519_11661T0	95.71	373	14	1	1	371	1	373	0	712
1	A105_05260T0	Z519_08133T0	95.71	396	17	0	1	396	1	396	0	567
2	A105_07165T0	Z519_06336T0	95.71	606	26	0	1	606	1	606	0	1211
5	A105_08284T0	Z519_09505T0	95.71	210	9	0	1	210	1	210	3.00E-137	386
3	A105_08815T0	Z519_03839T0	95.71	583	25	0	1	583	1	583	0	1086
2	A105_08945T0	Z519_05048T0	95.71	140	6	0	1	140	1	140	1.00E-99	285
2	A105_11884T0	Z519_01986T0	95.71	210	9	0	1	210	1	210	9.00E-149	415
94	A105_12112T0	Z519_12372T0	95.71	560	24	0	1	560	1	560	0	1117
1	A105_07164T0	Z519_06337T0	95.72	865	19	1	1	847	4	868	0	1694
3	A105_08333T0	Z519_09547T0	95.72	537	21	1	1	535	1	537	0	1056
2	A105_08978T0	Z519_05082T0	95.72	444	19	0	3	446	2	445	0	854
3	A105_09009T0	Z519_05114T0	95.72	444	19	0	1	444	1	444	0	877
27	A105_11223T0	Z519_08857T0	95.72	912	38	1	1	912	1	911	0	1640
22	A105_11485T0	Z519_08764T0	95.72	1145	31	1	1	1145	1	1127	0	2200
1	A105_12065T0	Z519_12326T0	95.72	304	9	1	10	313	54	353	0	590
18	A105_13078T0	Z519_11213T0	95.72	467	20	0	1	467	1	467	0	812
11	A105_13454T0	Z519_12703T0	95.72	397	17	0	1	397	1	397	0	785
1	A105_00754T0	Z519_00747T0	95.73	234	10	0	1	234	1	234	1.00E-165	460
3	A105_02407T0	Z519_06935T0	95.73	351	15	0	1	351	1	351	0	692
1	A105_02484T0	Z519_07017T0	95.73	281	12	0	5	285	264	544	0	562
23	A105_02570T0	Z519_07100T0	95.73	1755	62	3	1	1752	1	1745	0	3126
1	A105_05526T0	Z519_03642T0	95.73	796	34	0	1	796	1	796	0	1557
1	A105_07424T0	Z519_05996T0	95.73	117	5	0	1	117	1	117	2.00E-77	227
17	A105_08113T0	Z519_09337T0	95.73	656	26	1	1	656	1	654	0	1263
152	A105_08190T0	Z519_09414T0	95.73	539	23	0	1	539	1	539	0	1055
100	A105_08676T0	Z519_03983T0	95.73	328	14	0	1	328	1	328	0	627
3	A105_09574T0	Z519_01022T0	95.73	164	7	0	1	164	1	164	2.00E-114	324
1	A105_10109T0	Z519_04258T0	95.73	515	22	0	1	515	1	515	0	1027
6	A105_10318T0	Z519_10983T0	95.73	609	26	0	1	609	1	609	0	1206
1	A105_11377T0	Z519_02080T0	95.73	398	17	0	1	398	1	398	0	784
1	A105_12121T0	Z519_12381T0	95.73	422	18	0	1	422	1	422	0	825
1	A105_12317T0	Z519_12404T0	95.73	703	30	0	1	703	1	703	0	1312
9	A105_13213T0	Z519_12499T0	95.73	281	12	0	1	281	99	379	0	564
1	A105_13214T0	Z519_12500T0	95.73	164	7	0	1	164	127	290	2.00E-115	333
3	A105_00999T0	Z519_00925T0	95.74	798	34	0	1	798	1	798	0	1493

2	A105_02105T0	Z519_01375T0	95.74	1974	82	2	1	1973	1	1973	0	3852
1	A105_03262T0	Z519_10112T0	95.74	1407	60	0	1	1407	1	1407	0	2764
4	A105_03765T0	Z519_03087T0	95.74	329	14	0	1	329	1	329	0	627
11	A105_04079T0	Z519_03355T0	95.74	610	26	0	1	610	1	610	0	1219
1	A105_04501T0	Z519_02329T0	95.74	446	16	1	1	446	1	443	0	797
7	A105_05844T0	Z519_04889T0	95.74	611	26	0	1	611	1	611	0	1228
1	A105_06615T0	Z519_09050T0	95.74	493	17	1	1	493	1	489	0	868
5	A105_07401T0	Z519_05973T0	95.74	282	12	0	1	282	1	282	0	564
148	A105_07839T0	Z519_07655T0	95.74	493	21	0	1	493	1	493	0	966
2	A105_08486T0	Z519_05564T0	95.74	376	14	1	1	374	1	376	0	726
4	A105_08811T0	Z519_03843T0	95.74	845	18	1	1	845	1	827	0	1634
1	A105_08864T0	Z519_03789T0	95.74	235	10	0	1	235	1	235	5.00E-144	405
2	A105_09270T0	Z519_05377T0	95.74	282	12	0	2	283	59	340	0	561
5	A105_12017T0	Z519_05713T0	95.74	846	34	1	1	844	1	846	0	1264
2	A105_12608T0	Z519_05433T0	95.74	1175	49	1	1	1175	1	1174	0	2311
15	A105_12827T0	Z519_07431T0	95.74	329	14	0	1	329	1	329	0	647
1	A105_12872T0	Z519_07475T0	95.74	352	15	0	1	352	1	352	0	656
1	A105_00551T0	Z519_00561T0	95.75	565	24	0	1	565	1	565	0	1051
6	A105_04467T0	Z519_02299T0	95.75	1107	44	1	1	1107	1	1104	0	2099
120	A105_06225T0	Z519_10786T0	95.75	259	11	0	1	259	1	259	0	510
1	A105_06527T0	Z519_09138T0	95.75	400	17	0	1	400	1	400	0	732
6	A105_07154T0	Z519_06347T0	95.75	565	24	0	16	580	16	580	0	1056
2	A105_07297T0	Z519_05873T0	95.75	353	15	0	1	353	1	353	0	706
2	A105_08582T0	Z519_04063T0	95.75	353	15	0	1	353	1	353	0	644
4	A105_09090T0	Z519_05200T0	95.75	259	11	0	1	259	1	259	0	507
23	A105_09148T0	Z519_05258T0	95.75	212	0	1	1	203	1	212	2.00E-148	414
1	A105_09558T0	Z519_01038T0	95.75	753	32	0	1	753	1	753	0	1342
2	A105_12505T0	Z519_02839T0	95.75	471	20	0	13	483	14	484	0	955
3	A105_00114T0	Z519_00115T0	95.76	425	18	0	1	425	1	425	0	799
1	A105_01683T0	Z519_01734T0	95.76	543	23	0	1	543	1	543	0	1078
110	A105_01926T0	Z519_01534T0	95.76	613	25	1	1	613	1	612	0	1134
1	A105_02748T0	Z519_07281T0	95.76	1557	66	0	1	1557	1	1557	0	3026
2	A105_03524T0	Z519_09647T0	95.76	401	17	0	32	432	5	405	0	797
2	A105_04571T0	Z519_02398T0	95.76	660	23	1	1	660	1	655	0	1244
2	A105_08059T0	Z519_07894T0	95.76	165	4	1	1	162	1	165	2.00E-112	319

17	A105_08138T0	Z519_09361T0	95.76	448	15	1	1	444	1	448	0	859
3	A105_08984T0	Z519_05088T0	95.76	566	24	0	1	566	1	566	0	1014
25	A105_09173T0	Z519_05286T0	95.76	637	27	0	1	637	1	637	0	1249
1	A105_11135T0	Z519_08940T0	95.76	283	12	0	1	283	1	283	8.00E-168	469
1	A105_11236T0	Z519_08843T0	95.76	377	16	0	1	377	1	377	0	743
7	A105_13187T0	Z519_04335T0	95.76	401	17	0	1	401	3	403	0	807
2	A105_00190T0	Z519_00192T0	95.77	142	6	0	1	142	1	142	4.00E-97	279
1	A105_01056T0	Z519_00979T0	95.77	260	11	0	1	260	1	260	1.00E-176	490
1	A105_01642T0	Z519_01775T0	95.77	449	19	0	1	449	1	449	0	891
6	A105_01848T0	Z519_01615T0	95.77	686	29	0	1	686	48	733	0	1291
2	A105_02457T0	Z519_06989T0	95.77	426	17	1	1	425	1	426	0	805
3	A105_05782T0	Z519_04950T0	95.77	497	21	0	1	497	1	497	0	914
1	A105_06172T0	Z519_04568T0	95.77	1111	46	1	1	1110	227	1337	0	2033
7	A105_06516T0	Z519_09147T0	95.77	852	29	3	1	850	1	847	0	1469
1	A105_07319T0	Z519_05893T0	95.77	142	6	0	1	142	1	142	1.00E-92	267
1	A105_08218T0	Z519_09440T0	95.77	284	11	1	61	344	65	347	0	543
127	A105_08235T0	Z519_09455T0	95.77	638	27	0	1	638	49	686	0	1214
1	A105_09070T0	Z519_05181T0	95.77	1325	56	0	1	1325	1	1325	0	2640
10	A105_09081T0	Z519_05192T0	95.77	426	18	0	1	426	1	426	0	843
17	A105_09458T0	Z519_01128T0	95.77	307	13	0	17	323	17	323	0	596
1	A105_11003T0	Z519_06799T0	95.77	378	16	0	7	384	38	415	0	756
3	A105_11881T0	Z519_01985T0	95.77	520	18	1	1	520	1	516	0	970
2	A105_12236T0	Z519_04516T0	95.77	331	14	0	1	331	32	362	0	652
28	A105_12589T0	Z519_05453T0	95.77	331	10	2	1	330	1	328	0	620
58	A105_13006T0	Z519_04419T0	95.77	213	9	0	1	213	1	213	1.00E-147	424
4	A105_00374T0	Z519_00377T0	95.78	901	37	1	1	901	1	900	0	1812
2	A105_00582T0	Z519_00592T0	95.78	237	10	0	3	239	6	242	2.00E-167	465
3	A105_01940T0	Z519_01520T0	95.78	734	31	0	1	734	1	734	0	1279
10	A105_03549T0	Z519_09672T0	95.78	427	18	0	1	427	26	452	0	834
1	A105_04102T0	Z519_03375T0	95.78	308	13	0	1	308	1	308	0	612
2	A105_04654T0	Z519_02480T0	95.78	616	26	0	1	616	1	616	0	1193
1	A105_05286T0	Z519_08160T0	95.78	166	7	0	1	166	24	189	2.00E-88	259
2	A105_06393T0	Z519_10649T0	95.78	829	34	1	1	829	1	828	0	1477
2	A105_06894T0	Z519_06605T0	95.78	782	33	0	1	782	1	782	0	1563
1	A105_07691T0	Z519_07514T0	95.78	1303	52	1	1	1303	198	1497	0	2462

4	A105_08991T0	Z519_05095T0	95.78	332	14	0	1	332	1	332	0	652
11	A105_09889T0	Z519_10329T0	95.78	521	22	0	1	521	1	521	0	944
1	A105_12749T0	Z519_10808T0	95.78	593	25	0	1	593	1	593	0	1152
2	A105_02897T0	Z519_07428T0	95.79	214	9	0	1	214	1	214	5.00E-141	396
4	A105_04271T0	Z519_03549T0	95.79	594	24	1	1	594	1	593	0	1151
3	A105_04658T0	Z519_02484T0	95.79	285	12	0	1	285	1	285	0	568
2	A105_05371T0	Z519_08244T0	95.79	380	16	0	1	380	1	380	0	766
1	A105_05677T0	Z519_11172T0	95.79	261	11	0	1	261	3	263	3.00E-180	501
67	A105_06124T0	Z519_04612T0	95.79	997	42	0	1	997	1	997	0	1909
2	A105_06616T0	Z519_09049T0	95.79	1783	68	4	1	1779	1	1780	0	3114
7	A105_07160T0	Z519_06341T0	95.79	309	8	1	1	304	1	309	0	610
2	A105_07326T0	Z519_05898T0	95.79	309	13	0	1	309	12	320	0	618
5	A105_07540T0	Z519_06103T0	95.79	712	30	0	1	712	1	712	0	1392
1	A105_07608T0	Z519_06171T0	95.79	546	23	0	1	546	1	546	0	1077
4	A105_08545T0	Z519_04238T0	95.79	998	33	2	1	993	1	994	0	1942
1	A105_03790T0	Z519_03112T0	95.8	882	37	0	1	882	1	882	0	1667
48	A105_04301T0	Z519_03581T0	95.8	357	15	0	1	357	1	357	0	713
23	A105_05771T0	Z519_04966T0	95.8	547	23	0	1	547	1	547	0	1078
1	A105_06144T0	Z519_04593T0	95.8	500	21	0	1	500	1	500	0	967
43	A105_07046T0	Z519_06456T0	95.8	381	16	0	1	381	1	381	0	727
3	A105_07053T0	Z519_06449T0	95.8	238	10	0	60	297	1	238	4.00E-169	472
67	A105_07516T0	Z519_06082T0	95.8	572	24	0	1	572	1	572	0	1134
8	A105_07770T0	Z519_07583T0	95.8	476	20	0	1	476	1	476	0	950
2	A105_09047T0	Z519_05159T0	95.8	571	24	0	1	571	1	571	0	1129
1	A105_09259T0	Z519_05367T0	95.8	286	12	0	1	286	1	286	0	564
1	A105_09756T0	Z519_10465T0	95.8	1311	52	2	1	1311	1	1308	0	2523
1	A105_10033T0	Z519_04134T0	95.8	119	5	0	83	201	7	125	3.00E-80	238
1	A105_11260T0	Z519_08817T0	95.8	571	24	0	1	571	1	571	0	1065
147	A105_11624T0	Z519_08671T0	95.8	262	11	0	1	262	1	262	0	518
2	A105_12733T0	Z519_02808T0	95.8	119	5	0	1	119	1	119	1.00E-67	202
1	A105_13195T0	Z519_12481T0	95.8	2240	94	0	1	2240	1	2240	0	4470
38	A105_01909T0	Z519_01553T0	95.81	549	21	1	515	1061	1	549	0	1083
1	A105_03168T0	Z519_10018T0	95.81	382	14	1	1	382	1	380	0	750
1	A105_03190T0	Z519_10041T0	95.81	334	14	0	1	334	1	334	0	613
1	A105_04264T0	Z519_03542T0	95.81	191	8	0	1	191	1	191	9.00E-135	378

2	A105_04906T0	Z519_02732T0	95.81	621	26	0	1	621	1	621	0	1240
2	A105_05683T0	Z519_11166T0	95.81	573	24	0	1	573	1	573	0	1127
4	A105_05863T0	Z519_04871T0	95.81	645	27	0	27	671	1	645	0	1286
23	A105_06021T0	Z519_04715T0	95.81	1192	46	3	1	1190	1	1190	0	2224
2	A105_07242T0	Z519_05820T0	95.81	453	19	0	1	453	1	453	0	844
1	A105_07419T0	Z519_05991T0	95.81	215	5	1	1	215	1	211	6.00E-141	395
1	A105_00275T0	Z519_00284T0	95.82	311	13	0	1	311	1	311	0	624
1	A105_00652T0	Z519_00651T0	95.82	311	13	0	1	311	1	311	0	593
1	A105_02280T0	Z519_11696T0	95.82	239	10	0	1	239	1	239	4.00E-107	311
1	A105_03337T0	Z519_10161T0	95.82	526	22	0	1	526	1	526	0	904
60	A105_03400T0	Z519_10221T0	95.82	550	23	0	1	550	1	550	0	1098
18	A105_04429T0	Z519_02261T0	95.82	431	17	1	1	431	1	430	0	853
4	A105_04734T0	Z519_02563T0	95.82	287	12	0	1	287	1	287	0	534
1	A105_07334T0	Z519_05906T0	95.82	502	20	1	1	502	1	501	0	923
6	A105_08383T0	Z519_05661T0	95.82	862	36	0	1	862	136	997	0	1716
29	A105_09826T0	Z519_10391T0	95.82	359	15	0	1	359	1	359	0	694
2	A105_10228T0	Z519_10895T0	95.82	239	10	0	1	239	1	239	5.00E-170	471
8	A105_12523T0	Z519_02854T0	95.82	311	13	0	1	311	1	311	0	607
1	A105_01047T0	Z519_00970T0	95.83	96	4	0	1	96	1	96	2.00E-51	159
8	A105_01243T0	Z519_08510T0	95.83	791	13	1	1	771	1	791	0	1486
93	A105_02028T0	Z519_01428T0	95.83	288	12	0	1	288	1	288	0	536
1	A105_02283T0	Z519_11693T0	95.83	864	32	1	32	891	30	893	0	1661
21	A105_02753T0	Z519_07285T0	95.83	576	17	1	1	569	158	733	0	1114
1	A105_03421T0	Z519_10243T0	95.83	887	37	0	1	887	131	1017	0	1755
1	A105_04053T0	Z519_03329T0	95.83	120	5	0	1	120	1	120	1.00E-63	192
1	A105_04139T0	Z519_03419T0	95.83	672	28	0	1	672	1	672	0	1323
1	A105_04889T0	Z519_02713T0	95.83	648	27	0	1	648	1	648	0	1202
5	A105_05036T0	Z519_07927T0	95.83	264	11	0	1	264	1	264	0	519
10	A105_06358T0	Z519_10682T0	95.83	168	7	0	1	168	64	231	7.00E-113	323
5	A105_06685T0	Z519_08984T0	95.83	336	14	0	1	336	1	336	0	679
155	A105_06814T0	Z519_06686T0	95.83	575	24	0	1	575	1	575	0	1140
1	A105_07145T0	Z519_06356T0	95.83	503	21	0	1	503	1	503	0	1004
2	A105_08240T0	Z519_09460T0	95.83	264	11	0	1	264	1	264	8.00E-175	486
2	A105_08363T0	Z519_09575T0	95.83	120	5	0	1	120	1	120	8.00E-67	200
1	A105_08804T0	Z519_03850T0	95.83	120	5	0	1	120	1	120	3.00E-71	211

44	A105_09572T0	Z519_01024T0	95.83	840	27	2	1	832	1	840	0	1626
9	A105_09601T0	Z519_01007T0	95.83	600	25	0	1	600	1	600	0	1205
1	A105_09674T0	Z519_10533T0	95.83	839	35	0	1	839	1	839	0	1411
3	A105_09757T0	Z519_10464T0	95.83	456	19	0	1	456	1	456	0	876
29	A105_09792T0	Z519_10428T0	95.83	264	11	0	1	264	1	264	0	515
14	A105_10264T0	Z519_10930T0	95.83	456	19	0	1	456	83	538	0	909
2	A105_10905T0	Z519_11445T0	95.83	360	13	1	1	358	1	360	0	705
3	A105_12172T0	Z519_09290T0	95.83	96	4	0	1	96	44	139	9.00E-65	194
3	A105_01321T0	Z519_08584T0	95.84	433	18	0	1	433	212	644	0	850
7	A105_04110T0	Z519_03383T0	95.84	649	27	0	21	669	85	733	0	1248
21	A105_05226T0	Z519_08100T0	95.84	577	24	0	1	577	1	577	0	1137
16	A105_05531T0	Z519_03647T0	95.84	361	15	0	1	361	1	361	0	689
1	A105_06399T0	Z519_10642T0	95.84	770	32	0	2	771	56	825	0	1521
119	A105_09804T0	Z519_10416T0	95.84	505	21	0	1	505	1	505	0	968
10	A105_10919T0	Z519_11459T0	95.84	409	17	0	1	409	1	409	0	718
1	A105_11435T0	Z519_08715T0	95.84	1681	70	0	1	1681	1	1681	0	3274
23	A105_11821T0	Z519_01928T0	95.84	553	23	0	1	553	1	553	0	1100
2	A105_12329T0	Z519_12417T0	95.84	457	19	0	1	457	1	457	0	904
1	A105_13443T0	Z519_12177T0	95.84	625	26	0	1	625	1	625	0	997
1	A105_00821T0	Z519_00769T0	95.85	193	8	0	1	193	1	193	1.00E-135	380
29	A105_00991T0	Z519_00920T0	95.85	289	12	0	1	289	1	289	0	587
1	A105_02418T0	Z519_06946T0	95.85	193	8	0	1	193	1	193	2.00E-123	349
16	A105_03238T0	Z519_10087T0	95.85	627	24	1	1	627	1	625	0	1226
1	A105_03989T0	Z519_03287T0	95.85	265	11	0	1	265	1	265	0	520
146	A105_07359T0	Z519_05931T0	95.85	554	23	0	1	554	1	554	0	1093
4	A105_07622T0	Z519_06185T0	95.85	337	14	0	1	337	1	337	0	674
3	A105_08326T0	Z519_09541T0	95.85	603	24	1	19	621	534	1135	0	1174
13	A105_08331T0	Z519_09545T0	95.85	313	13	0	1	313	1	313	0	603
1	A105_08913T0	Z519_03740T0	95.85	193	8	0	1	193	1	193	5.00E-137	384
14	A105_09997T0	Z519_04171T0	95.85	627	25	1	1	627	1	626	0	1176
2	A105_10116T0	Z519_04265T0	95.85	1374	57	0	1	1374	1	1374	0	2570
2	A105_10426T0	Z519_11302T0	95.85	265	11	0	1	265	1	265	0	506
1	A105_02080T0	Z519_01398T0	95.86	362	11	2	1	359	1	361	0	712
4	A105_03182T0	Z519_10033T0	95.86	870	36	0	1	870	1	870	0	1679
96	A105_03573T0	Z519_09695T0	95.86	628	26	0	1	628	1	628	0	1246

2	A105_04637T0	Z519_02465T0	95.86	556	23	0	1	556	1	556	0	1085
3	A105_05118T0	Z519_08008T0	95.86	483	18	2	1	481	1	483	0	934
1	A105_07105T0	Z519_06395T0	95.86	314	12	1	1	313	55	368	0	536
2	A105_09124T0	Z519_05235T0	95.86	749	31	0	1	749	1	749	0	1487
1	A105_09873T0	Z519_10344T0	95.86	338	14	0	27	364	1	338	0	658
3	A105_09996T0	Z519_04172T0	95.86	555	23	0	12	566	2	556	0	1059
1	A105_10068T0	Z519_04103T0	95.86	169	7	0	1	169	16	184	2.00E-104	300
3	A105_10273T0	Z519_10940T0	95.86	314	13	0	1	314	1	314	0	606
4	A105_11366T0	Z519_02092T0	95.86	555	23	0	1	555	1	555	0	1012
5	A105_12971T0	Z519_04389T0	95.86	1354	53	2	1	1351	1	1354	0	2529
145	A105_13464T0	Z519_08795T0	95.86	290	12	0	1	290	1	290	0	574
3	A105_00587T0	Z519_00597T0	95.87	508	21	0	72	579	1	508	0	1022
2	A105_01348T0	Z519_11923T0	95.87	387	16	0	1	387	1	387	0	729
3	A105_01738T0	Z519_01700T0	95.87	678	27	1	1	678	1	677	0	1298
32	A105_01808T0	Z519_01656T0	95.87	339	14	0	1	339	1	339	0	670
1	A105_01970T0	Z519_01489T0	95.87	339	14	0	23	361	1	339	0	638
35	A105_02403T0	Z519_06931T0	95.87	1212	50	0	1	1212	1	1212	0	2368
5	A105_02676T0	Z519_07209T0	95.87	606	25	0	1	606	1	606	0	1170
1	A105_03098T0	Z519_11940T0	95.87	121	5	0	1	121	1	121	2.00E-80	234
1	A105_05932T0	Z519_04802T0	95.87	242	10	0	1	242	1	242	6.00E-146	410
3	A105_06019T0	Z519_04717T0	95.87	242	10	0	1	242	1	242	1.00E-163	455
8	A105_06917T0	Z519_06582T0	95.87	1260	52	0	1	1260	1	1260	0	2491
1	A105_07897T0	Z519_07728T0	95.87	315	13	0	1	315	1	315	0	624
3	A105_10289T0	Z519_10955T0	95.87	606	25	0	1	606	1	606	0	1221
149	A105_12138T0	Z519_09251T0	95.87	557	23	0	1	557	1	557	0	1102
11	A105_00099T0	Z519_00099T0	95.88	437	7	1	1	437	263	688	0	865
24	A105_00701T0	Z519_00695T0	95.88	607	25	0	1	607	1	607	0	1148
39	A105_03715T0	Z519_03034T0	95.88	486	20	0	1	486	1	486	0	963
1	A105_04576T0	Z519_02404T0	95.88	655	27	0	1	655	86	740	0	1171
1	A105_07491T0	Z519_06056T0	95.88	291	12	0	1	291	1	291	0	577
6	A105_07558T0	Z519_06122T0	95.88	461	19	0	1	461	1	461	0	892
8	A105_08564T0	Z519_04080T0	95.88	582	24	0	1	582	1	582	0	1155
1	A105_10064T0	Z519_04107T0	95.88	582	23	1	1	581	1	582	0	991
144	A105_10079T0	Z519_04090T0	95.88	534	22	0	1	534	1	534	0	993
1	A105_10737T0	Z519_09925T0	95.88	388	16	0	1	388	1	388	0	747

3	A105_11070T0	Z519_06870T0	95.88	656	27	0	1	656	1	656	0	1309
16	A105_00006T0	Z519_00006T0	95.89	608	25	0	1	608	1	608	0	1178
10	A105_00147T0	Z519_00148T0	95.89	462	19	0	1	462	1	462	0	898
2	A105_00480T0	Z519_00487T0	95.89	146	6	0	1	146	1	146	1.00E-94	273
1	A105_01635T0	Z519_01780T0	95.89	1290	53	0	1	1290	1	1290	0	2364
2	A105_01742T0	Z519_01696T0	95.89	438	17	1	1	438	25	461	0	801
4	A105_02088T0	Z519_01392T0	95.89	876	31	2	1	876	1	871	0	1688
1	A105_04606T0	Z519_02434T0	95.89	219	7	1	1	219	166	382	3.00E-150	426
1	A105_05272T0	Z519_08145T0	95.89	219	9	0	1	219	1	219	7.00E-155	431
2	A105_07062T0	Z519_06438T0	95.89	706	28	1	1	705	1	706	0	1328
3	A105_08147T0	Z519_09370T0	95.89	755	31	0	1	755	1	755	0	1490
3	A105_08574T0	Z519_04069T0	95.89	316	13	0	1	316	1	316	0	626
1	A105_09250T0	Z519_05359T0	95.89	316	13	0	1	316	1	316	0	619
1	A105_09348T0	Z519_01219T0	95.89	146	6	0	1	146	1	146	3.00E-98	282
1	A105_09428T0	Z519_01158T0	95.89	316	13	0	1	316	1	316	0	630
79	A105_10089T0	Z519_04251T0	95.89	973	40	0	1	973	1	973	0	1885
7	A105_11092T0	Z519_06892T0	95.89	219	9	0	1	219	1	219	1.00E-154	431
96	A105_11142T0	Z519_08933T0	95.89	632	26	0	1	632	1	632	0	1273
3	A105_12493T0	Z519_02826T0	95.89	146	6	0	1	146	1	146	1.00E-91	266
12	A105_12809T0	Z519_12780T0	95.89	219	9	0	1	219	1	219	4.00E-157	437
6	A105_13330T0	Z519_05003T0	95.89	1751	71	1	1	1750	1	1751	0	3383
1	A105_01529T0	Z519_01891T0	95.9	122	5	0	1	122	1	122	1.00E-80	235
2	A105_02540T0	Z519_07070T0	95.9	195	8	0	9	203	1	195	5.00E-138	387
3	A105_02887T0	Z519_07418T0	95.9	366	15	0	1	366	1	366	0	737
1	A105_03137T0	Z519_09991T0	95.9	244	10	0	1	244	1	244	8.00E-147	413
3	A105_03173T0	Z519_10022T0	95.9	463	19	0	1	463	1	463	0	867
1	A105_04214T0	Z519_03494T0	95.9	976	40	0	1	976	1	976	0	1931
3	A105_05861T0	Z519_04873T0	95.9	488	20	0	1	488	1	488	0	964
1	A105_05909T0	Z519_04825T0	95.9	561	23	0	1	561	1	561	0	1064
152	A105_06892T0	Z519_06607T0	95.9	293	12	0	1	293	1	293	0	577
4	A105_08435T0	Z519_05616T0	95.9	537	22	0	1	537	66	602	0	1045
5	A105_09236T0	Z519_05346T0	95.9	463	19	0	1	463	1	463	0	913
1	A105_09370T0	Z519_01198T0	95.9	317	13	0	11	327	672	988	0	577
2	A105_09944T0	Z519_04203T0	95.9	195	8	0	15	209	1	195	2.00E-126	358
8	A105_10772T0	Z519_12293T0	95.9	293	12	0	1	293	1	293	0	589

5	A105_10795T0	Z519_12272T0	95.9	268	11	0	98	365	93	360	0	534
4	A105_12237T0	Z519_04515T0	95.9	415	17	0	1	415	1	415	0	800
1	A105_01308T0	Z519_08572T0	95.91	563	23	0	2	564	1	563	0	1011
1	A105_06608T0	Z519_09056T0	95.91	220	9	0	1	220	1	220	3.00E-158	440
1	A105_08156T0	Z519_09380T0	95.91	856	35	0	1	856	1	856	0	1670
5	A105_10310T0	Z519_10975T0	95.91	440	18	0	1	440	1	440	0	870
5	A105_10541T0	Z519_12602T0	95.91	220	8	1	1	219	1	220	4.00E-107	311
22	A105_10686T0	Z519_09872T0	95.91	807	33	0	1	807	1	807	0	1520
1	A105_11029T0	Z519_06831T0	95.91	342	14	0	1	342	1	342	0	654
6	A105_11650T0	Z519_08649T0	95.91	269	11	0	1	269	1	269	0	531
2	A105_11847T0	Z519_01953T0	95.91	220	9	0	1	220	1	220	8.00E-151	421
4	A105_12168T0	Z519_09286T0	95.91	367	15	0	86	452	1	367	0	662
2	A105_13437T0	Z519_12194T0	95.91	269	11	0	1	269	1	269	0	509
1	A105_03474T0	Z519_09600T0	95.92	417	17	0	1	417	1	417	0	803
1	A105_03949T0	Z519_03248T0	95.92	834	32	1	1	832	99	932	0	1348
89	A105_04254T0	Z519_03532T0	95.92	368	15	0	1	368	1	368	0	729
6	A105_07405T0	Z519_05977T0	95.92	808	33	0	1	808	1	808	0	1523
2	A105_08017T0	Z519_07854T0	95.92	612	24	1	1	611	1	612	0	1192
3	A105_10473T0	Z519_11349T0	95.92	441	18	0	1	441	1	441	0	867
1	A105_10497T0	Z519_11373T0	95.92	196	8	0	1	196	1	196	1.00E-134	378
12	A105_01028T0	Z519_00951T0	95.93	221	9	0	1	221	1	221	1.00E-158	441
11	A105_01205T0	Z519_08472T0	95.93	467	19	0	1	467	1	467	0	901
1	A105_02994T0	Z519_12035T0	95.93	541	22	0	1	541	1	541	0	983
2	A105_03222T0	Z519_10073T0	95.93	221	9	0	46	266	1	221	5.00E-158	441
1	A105_03504T0	Z519_09628T0	95.93	565	22	1	40	603	1	565	0	1090
16	A105_04412T0	Z519_02243T0	95.93	664	27	0	1	664	1	664	0	1310
105	A105_05775T0	Z519_04962T0	95.93	589	24	0	1	589	1	589	0	1093
1	A105_05833T0	Z519_04899T0	95.93	934	37	1	1	933	170	1103	0	1585
3	A105_08084T0	Z519_04316T0	95.93	270	11	0	1	270	1	270	0	502
17	A105_09632T0	Z519_10573T0	95.93	492	20	0	1	492	1	492	0	998
1	A105_10220T0	Z519_10886T0	95.93	172	7	0	1	172	1	172	2.00E-120	345
10	A105_10291T0	Z519_10957T0	95.93	418	17	0	1	418	1	418	0	834
2	A105_10512T0	Z519_12631T0	95.93	860	35	0	1	860	1	860	0	1707
1	A105_10525T0	Z519_12619T0	95.93	541	21	1	1	540	1	541	0	1028
194	A105_11678T0	Z519_08618T0	95.93	295	12	0	1	295	1	295	0	575

5	A105_03211T0	Z519_10061T0	95.94	345	14	0	16	360	1	345	0	703
40	A105_06743T0	Z519_06767T0	95.94	542	22	0	1	542	1	542	0	1034
7	A105_07273T0	Z519_05851T0	95.94	1208	49	0	1	1208	1	1208	0	2351
107	A105_08379T0	Z519_05665T0	95.94	443	17	1	1	443	1	442	0	845
2	A105_08938T0	Z519_05041T0	95.94	715	27	2	1	713	1	715	0	1395
148	A105_09562T0	Z519_01034T0	95.94	517	21	0	1	517	1	517	0	994
9	A105_10153T0	Z519_12700T0	95.94	345	14	0	1	345	1	345	0	622
7	A105_12506T0	Z519_02839T0	95.94	419	17	0	1	419	570	988	0	829
1	A105_00101T0	Z519_00101T0	95.95	740	30	0	1	740	1	740	0	1459
5	A105_01615T0	Z519_01802T0	95.95	692	28	0	1	692	1	692	0	1349
9	A105_03908T0	Z519_03222T0	95.95	370	15	0	1	370	1	370	0	741
8	A105_06438T0	Z519_10603T0	95.95	346	14	0	1	346	1	346	0	688
1	A105_07245T0	Z519_05823T0	95.95	173	7	0	1	173	1	173	5.00E-124	349
2	A105_07351T0	Z519_05923T0	95.95	74	3	0	1	74	1	74	1.00E-44	150
1	A105_08075T0	Z519_04325T0	95.95	420	17	0	1	420	1	420	0	786
15	A105_09332T0	Z519_01234T0	95.95	346	14	0	1	346	1	346	0	681
12	A105_10265T0	Z519_10931T0	95.95	840	33	1	1	840	1	839	0	1643
20	A105_10350T0	Z519_11021T0	95.95	296	12	0	1	296	1	296	0	580
1	A105_11738T0	Z519_02942T0	95.95	494	20	0	1	494	1	494	0	965
2	A105_12149T0	Z519_09262T0	95.95	395	14	1	1	395	1	393	0	781
4	A105_12938T0	Z519_11077T0	95.95	444	18	0	52	495	1	444	0	850
25	A105_01372T0	Z519_11897T0	95.96	446	18	0	1	446	1	446	0	855
1	A105_02977T0	Z519_12052T0	95.96	421	17	0	1	421	1	421	0	822
7	A105_03448T0	Z519_10270T0	95.96	867	19	1	1	867	1	851	0	1548
47	A105_04793T0	Z519_02620T0	95.96	520	21	0	1	520	1	520	0	1052
1	A105_06288T0	Z519_10734T0	95.96	198	8	0	1	198	1	198	9.00E-138	386
4	A105_09168T0	Z519_05279T0	95.96	272	9	1	1	272	1	270	0	541
60	A105_10789T0	Z519_12277T0	95.96	569	23	0	1	569	1	569	0	1139
20	A105_11410T0	Z519_02049T0	95.96	545	22	0	1	545	1	545	0	1053
3	A105_00713T0	Z519_00707T0	95.97	695	14	1	1	695	1	681	0	1387
65	A105_01035T0	Z519_00958T0	95.97	571	23	0	1	571	1	571	0	1009
3	A105_03133T0	Z519_09986T0	95.97	596	24	0	1	596	1	596	0	1189
3	A105_03962T0	Z519_03261T0	95.97	347	14	0	1	347	84	430	0	701
1	A105_04894T0	Z519_02718T0	95.97	621	24	1	1	621	1	620	0	1179
5	A105_05586T0	Z519_03698T0	95.97	273	11	0	1	273	1	273	0	547

1	A105_05608T0	Z519_03716T0	95.97	1391	55	1	1	1390	1	1391	0	2759
1	A105_07279T0	Z519_05857T0	95.97	496	20	0	8	503	1	496	0	982
98	A105_08510T0	Z519_05541T0	95.97	621	25	0	1	621	1	621	0	1192
8	A105_08732T0	Z519_03927T0	95.97	496	15	1	1	491	1	496	0	967
3	A105_11510T0	Z519_08788T0	95.97	1068	42	1	1	1067	1	1068	0	2123
2	A105_04100T0	Z519_03373T0	95.98	373	15	0	1	373	1	373	0	747
2	A105_04874T0	Z519_02698T0	95.98	747	30	0	1	747	1	747	0	1493
1	A105_04940T0	Z519_02764T0	95.98	473	19	0	1	473	1	473	0	941
10	A105_06012T0	Z519_04724T0	95.98	796	32	0	1	796	1	796	0	1599
65	A105_06016T0	Z519_04720T0	95.98	597	24	0	1	597	21	617	0	1192
1	A105_08740T0	Z519_03918T0	95.98	522	18	1	1	522	1	519	0	977
145	A105_08747T0	Z519_03911T0	95.98	522	21	0	12	533	1	522	0	1003
24	A105_09052T0	Z519_05164T0	95.98	1891	74	2	1	1889	1	1891	0	3632
1	A105_10869T0	Z519_11407T0	95.98	174	7	0	1	174	1	174	4.00E-117	332
3	A105_11718T0	Z519_02961T0	95.98	423	10	1	1	416	1	423	0	731
1	A105_13084T0	Z519_11217T0	95.98	870	18	1	1	870	2	854	0	1649
1	A105_13095T0	Z519_11225T0	95.98	174	7	0	1	174	1	174	3.00E-108	309
13	A105_00377T0	Z519_00380T0	95.99	474	19	0	1	474	1	474	0	947
6	A105_00673T0	Z519_00668T0	95.99	1395	52	2	1	1395	1	1391	0	2452
1	A105_01072T0	Z519_00994T0	95.99	549	22	0	1	549	1	549	0	1082
98	A105_02211T0	Z519_11764T0	95.99	624	25	0	1	624	1	624	0	1260
1	A105_02328T0	Z519_11646T0	95.99	299	12	0	1	299	1	299	1.00E-171	481
2	A105_03821T0	Z519_03140T0	95.99	723	29	0	1	723	1	723	0	1368
4	A105_04172T0	Z519_03450T0	95.99	573	22	1	1	573	1	572	0	1080
3	A105_04685T0	Z519_02515T0	95.99	349	13	1	1	349	1	348	0	682
54	A105_07114T0	Z519_06386T0	95.99	449	18	0	1	449	1	449	0	886
1	A105_07667T0	Z519_06231T0	95.99	548	14	1	1	548	1	540	0	949
95	A105_08279T0	Z519_09500T0	95.99	573	23	0	1	573	1	573	0	1134
2	A105_08842T0	Z519_03811T0	95.99	299	11	1	1	299	1	298	0	588
42	A105_09075T0	Z519_05186T0	95.99	324	13	0	1	324	1	324	0	648
8	A105_09565T0	Z519_01031T0	95.99	299	12	0	1	299	1	299	0	577
1	A105_00544T0	Z519_00554T0	96	325	13	0	1	325	1	325	0	544
1	A105_01411T0	Z519_11856T0	96	350	13	1	1	349	1	350	0	633
12	A105_02594T0	Z519_07124T0	96	200	8	0	1	200	1	200	2.00E-143	401
1	A105_03562T0	Z519_09685T0	96	325	13	0	1	325	1	325	0	590

4	A105_03682T0	Z519_03001T0	96	325	13	0	1	325	1	325	0	619
56	A105_06621T0	Z519_09044T0	96	500	19	1	1	499	1	500	0	991
1	A105_06845T0	Z519_06656T0	96	200	7	1	1	199	1	200	3.00E-101	294
1	A105_07771T0	Z519_07585T0	96	200	8	0	1	200	1	200	3.00E-143	400
1	A105_07975T0	Z519_07813T0	96	500	20	0	3	502	2	501	0	954
194	A105_08302T0	Z519_09518T0	96	250	10	0	1	250	1	250	8.00E-175	484
2	A105_08445T0	Z519_05607T0	96	250	9	1	1	250	1	249	2.00E-88	265
1	A105_10474T0	Z519_11350T0	96	175	7	0	1	175	1	175	3.00E-120	340
2	A105_12316T0	Z519_12403T0	96	100	4	0	1	100	6	105	2.00E-65	195
1	A105_12848T0	Z519_07453T0	96	150	6	0	49	198	1	150	2.00E-103	298
3	A105_13186T0	Z519_04336T0	96	575	23	0	1	575	1	575	0	1136
10	A105_13352T0	Z519_09308T0	96	375	10	1	1	375	30	399	0	744
3	A105_00957T0	Z519_00891T0	96.01	702	26	1	1	700	1	702	0	1380
16	A105_01418T0	Z519_11850T0	96.01	276	11	0	1	276	1	276	0	513
1	A105_01803T0	Z519_01661T0	96.01	552	22	0	1	552	1	552	0	1099
1	A105_03267T0	Z519_10116T0	96.01	301	12	0	1	301	418	718	0	601
11	A105_04109T0	Z519_03382T0	96.01	677	27	0	1	677	1	677	0	1343
4	A105_04839T0	Z519_02663T0	96.01	827	33	0	1	827	1	827	0	1491
11	A105_04946T0	Z519_02770T0	96.01	301	11	1	1	301	1	300	0	589
13	A105_05012T0	Z519_12215T0	96.01	476	19	0	1	476	1	476	0	936
151	A105_08782T0	Z519_03875T0	96.01	526	20	1	1	525	1	526	0	1041
25	A105_09754T0	Z519_10467T0	96.01	376	15	0	1	376	1	376	0	738
1	A105_10214T0	Z519_10880T0	96.01	1129	43	1	1	1127	1	1129	0	2215
1	A105_11938T0	Z519_02039T0	96.01	451	18	0	1	451	1	451	0	904
18	A105_12617T0	Z519_05424T0	96.01	426	17	0	1	426	1	426	0	817
180	A105_01696T0	Z519_01724T0	96.02	251	10	0	16	266	4	254	5.00E-180	498
1	A105_06922T0	Z519_06577T0	96.02	176	7	0	1	176	1	176	8.00E-108	309
1	A105_08046T0	Z519_07881T0	96.02	201	8	0	1	201	1	201	7.00E-137	384
167	A105_08234T0	Z519_09454T0	96.02	528	21	0	1	528	49	576	0	1051
1	A105_09258T0	Z519_05366T0	96.02	377	15	0	1	377	1	377	0	701
3	A105_11885T0	Z519_01988T0	96.02	226	9	0	1	226	1	226	2.00E-157	438
1	A105_12573T0	Z519_05470T0	96.02	427	17	0	1	427	1	427	0	814
2	A105_13166T0	Z519_04358T0	96.02	452	18	0	1	452	1	452	0	871
3	A105_00185T0	Z519_00188T0	96.03	479	19	0	1	479	1	479	0	937
162	A105_00501T0	Z519_00507T0	96.03	529	21	0	1	529	1	529	0	1026

1	A105_01222T0	Z519_08490T0	96.03	479	9	1	1	479	78	546	0	908
34	A105_02602T0	Z519_07131T0	96.03	453	18	0	1	453	1	453	0	902
34	A105_02605T0	Z519_07134T0	96.03	403	16	0	1	403	1	403	0	802
1	A105_03492T0	Z519_09616T0	96.03	277	11	0	1	277	1	277	0	550
1	A105_05421T0	Z519_08296T0	96.03	277	11	0	1	277	63	339	0	543
3	A105_06453T0	Z519_09207T0	96.03	378	15	0	1	378	22	399	0	763
1	A105_07732T0	Z519_07547T0	96.03	428	6	1	1	428	1	417	0	852
12	A105_11269T0	Z519_08808T0	96.03	705	28	0	3	707	398	1102	0	1394
10	A105_11602T0	Z519_08692T0	96.03	252	10	0	1	252	1	252	2.00E-175	486
1	A105_00221T0	Z519_00219T0	96.04	404	16	0	1	404	1	404	0	738
16	A105_01637T0	Z519_01779T0	96.04	227	9	0	1	227	48	274	3.00E-157	446
3	A105_02395T0	Z519_06924T0	96.04	429	17	0	1	429	1	429	0	851
20	A105_03059T0	Z519_11979T0	96.04	555	22	0	1	555	1	555	0	1055
1	A105_03489T0	Z519_09613T0	96.04	202	8	0	1	202	1	202	1.00E-112	323
60	A105_04233T0	Z519_03512T0	96.04	556	22	0	1	556	1	556	0	1114
4	A105_05541T0	Z519_03658T0	96.04	328	13	0	1	328	250	577	0	673
3	A105_05787T0	Z519_04946T0	96.04	303	11	1	1	302	1	303	0	551
2	A105_06967T0	Z519_06529T0	96.04	303	10	1	1	301	1	303	0	538
1	A105_07380T0	Z519_05952T0	96.04	833	33	0	1	833	1	833	0	1668
2	A105_07458T0	Z519_06025T0	96.04	429	17	0	1	429	1	429	0	835
8	A105_07669T0	Z519_06233T0	96.04	1491	59	0	1	1491	1	1491	0	2948
83	A105_09836T0	Z519_10381T0	96.04	505	20	0	1	505	1	505	0	998
2	A105_10466T0	Z519_11343T0	96.04	454	18	0	1	454	1	454	0	876
95	A105_10784T0	Z519_12282T0	96.04	606	24	0	1	606	1	606	0	1222
3	A105_12096T0	Z519_12357T0	96.04	454	18	0	1	454	1	454	0	865
4	A105_13019T0	Z519_04436T0	96.04	303	12	0	1	303	1	303	0	553
17	A105_13346T0	Z519_09323T0	96.04	1011	40	0	1	1011	1	1011	0	1993
4	A105_00038T0	Z519_00038T0	96.05	506	20	0	1	506	1	506	0	1021
13	A105_00878T0	Z519_00826T0	96.05	380	15	0	8	387	29	408	0	766
9	A105_01691T0	Z519_01729T0	96.05	354	14	0	10	363	10	363	0	684
1	A105_02036T0	Z519_01420T0	96.05	76	3	0	1	76	38	113	1.00E-37	123
140	A105_02150T0	Z519_01329T0	96.05	304	12	0	1	304	1	304	0	602
8	A105_02373T0	Z519_11599T0	96.05	329	13	0	1	329	1	329	0	665
39	A105_03588T0	Z519_09714T0	96.05	531	14	1	1	524	1	531	0	1011
4	A105_03993T0	Z519_03291T0	96.05	177	7	0	1	177	1	177	4.00E-123	347

2	A105_05035T0	Z519_07925T0	96.05	380	14	1	1	379	1	380	0	726
29	A105_05559T0	Z519_03674T0	96.05	329	13	0	1	329	1	329	0	632
2	A105_05762T0	Z519_04975T0	96.05	506	20	0	1	506	1	506	0	948
1	A105_06228T0	Z519_10783T0	96.05	177	7	0	1	177	1	177	4.00E-105	302
14	A105_06376T0	Z519_10664T0	96.05	481	19	0	1	481	1	481	0	940
3	A105_07548T0	Z519_06111T0	96.05	810	32	0	1	810	1	810	0	1610
1	A105_08767T0	Z519_03890T0	96.05	76	3	0	1	76	1	76	6.00E-45	141
18	A105_11782T0	Z519_02899T0	96.05	405	16	0	1	405	1	405	0	820
25	A105_12742T0	Z519_10801T0	96.05	582	23	0	1	582	1	582	0	1168
1	A105_00295T0	Z519_00305T0	96.06	1118	43	1	53	1170	1	1117	0	2178
1	A105_00836T0	Z519_00782T0	96.06	279	11	0	1	279	1	279	0	504
1	A105_03045T0	Z519_11992T0	96.06	203	8	0	1	203	1	203	4.00E-144	403
1	A105_03759T0	Z519_03081T0	96.06	1676	66	0	1	1676	1	1676	0	3164
171	A105_03774T0	Z519_03096T0	96.06	1219	48	0	1	1219	1	1219	0	2385
6	A105_09239T0	Z519_05349T0	96.06	279	11	0	1	279	1	279	0	517
14	A105_09918T0	Z519_04222T0	96.06	254	10	0	1	254	1	254	0	503
2	A105_10169T0	Z519_12684T0	96.06	127	5	0	1	127	1	127	4.00E-87	252
4	A105_11098T0	Z519_06898T0	96.06	254	10	0	1	254	1	254	0	504
4	A105_11532T0	Z519_11566T0	96.06	864	28	1	1	864	1	858	0	1620
3	A105_12577T0	Z519_05466T0	96.06	838	33	0	1	838	1	838	0	1677
5	A105_13096T0	Z519_11226T0	96.06	381	15	0	9	389	31	411	0	723
2	A105_13256T0	Z519_12160T0	96.06	203	8	0	9	211	4	206	3.00E-144	404
15	A105_00765T0	Z519_00758T0	96.07	356	13	1	149	503	73	428	0	701
19	A105_01512T0	Z519_01905T0	96.07	585	23	0	1	585	1	585	0	1112
8	A105_01711T0	Z519_01715T0	96.07	611	24	0	1	611	1	611	0	1224
19	A105_05066T0	Z519_07956T0	96.07	560	22	0	1	560	1	560	0	1120
25	A105_06439T0	Z519_10602T0	96.07	560	22	0	1	560	1	560	0	1097
66	A105_08095T0	Z519_04306T0	96.07	280	11	0	1	280	1	280	0	562
1	A105_09987T0	Z519_04182T0	96.07	305	12	0	1	305	1	305	0	599
2	A105_10353T0	Z519_11024T0	96.07	382	15	0	9	390	9	390	0	769
1	A105_11554T0	Z519_11542T0	96.07	356	14	0	1	356	1	356	0	676
1	A105_12021T0	Z519_05708T0	96.07	942	37	0	1	942	1	942	0	1751
4	A105_00192T0	Z519_00194T0	96.08	612	24	0	6	617	1	612	0	1145
2	A105_01165T0	Z519_08433T0	96.08	204	8	0	1	204	1	204	1.00E-145	407
1	A105_03426T0	Z519_10248T0	96.08	485	19	0	1	485	1	485	0	914

1	A105_04542T0	Z519_02369T0	96.08	153	6	0	1	153	1	153	3.00E-104	297
1	A105_04846T0	Z519_02670T0	96.08	612	24	0	1	612	1	612	0	1222
151	A105_05752T0	Z519_04985T0	96.08	459	18	0	63	521	45	503	0	870
1	A105_07179T0	Z519_06321T0	96.08	255	10	0	1	255	1	255	0	515
1	A105_07738T0	Z519_07552T0	96.08	255	10	0	1	255	1	255	0	509
8	A105_08085T0	Z519_04315T0	96.08	485	19	0	1	485	1	485	0	960
4	A105_09015T0	Z519_05120T0	96.08	408	16	0	1	408	1	408	0	818
2	A105_09094T0	Z519_05204T0	96.08	255	10	0	1	255	1	255	3.00E-148	417
6	A105_10160T0	Z519_12693T0	96.08	434	17	0	1	434	1	434	0	847
21	A105_10500T0	Z519_11377T0	96.08	612	24	0	1	612	1	612	0	1161
118	A105_10798T0	Z519_12269T0	96.08	536	21	0	1	536	1	536	0	1043
5	A105_11681T0	Z519_08615T0	96.08	204	8	0	1	204	1	204	2.00E-147	411
90	A105_12791T0	Z519_12796T0	96.08	1659	65	0	1	1659	1	1659	0	3317
3	A105_01325T0	Z519_08589T0	96.09	256	9	1	1	256	1	255	2.00E-173	481
4	A105_03786T0	Z519_03108T0	96.09	691	27	0	1	691	1	691	0	1362
1	A105_03820T0	Z519_03139T0	96.09	512	19	1	1	511	1	512	0	1004
1	A105_04547T0	Z519_02374T0	96.09	307	12	0	1	307	1	307	3.00E-163	460
7	A105_04557T0	Z519_02385T0	96.09	409	15	1	1	409	1	408	0	815
1	A105_04714T0	Z519_02544T0	96.09	179	7	0	1	179	1	179	6.00E-125	352
28	A105_05324T0	Z519_08199T0	96.09	563	22	0	1	563	40	602	0	1133
15	A105_05367T0	Z519_08240T0	96.09	435	17	0	1	435	1	435	0	866
19	A105_05702T0	Z519_11148T0	96.09	281	11	0	1	281	1	281	0	558
3	A105_06970T0	Z519_06526T0	96.09	588	21	2	17	603	17	603	0	1174
2	A105_07375T0	Z519_05947T0	96.09	179	7	0	124	302	69	247	9.00E-121	349
63	A105_07889T0	Z519_07720T0	96.09	537	21	0	1	537	64	600	0	1034
1	A105_09030T0	Z519_05135T0	96.09	843	33	0	1	843	1	843	0	1388
150	A105_12518T0	Z519_02846T0	96.09	512	20	0	1	512	1	512	0	998
2	A105_01266T0	Z519_08532T0	96.1	539	21	0	1	539	1	539	0	1069
1	A105_01439T0	Z519_11829T0	96.1	1871	73	0	1	1871	1	1871	0	3598
1	A105_04755T0	Z519_02583T0	96.1	821	32	0	1	821	1	821	0	1521
97	A105_05008T0	Z519_12213T0	96.1	539	21	0	1	539	1	539	0	1060
4	A105_05562T0	Z519_03677T0	96.1	282	11	0	1	282	1	282	0	558
2	A105_06047T0	Z519_04692T0	96.1	564	15	1	1	557	1	564	0	910
1	A105_06449T0	Z519_09211T0	96.1	462	18	0	1	462	1	462	0	852
2	A105_07787T0	Z519_07602T0	96.1	693	22	1	1	693	1	688	0	1207

1	A105_07969T0	Z519_07807T0	96.1	205	8	0	1	205	1	205	7.00E-126	357
2	A105_08618T0	Z519_04031T0	96.1	77	3	0	21	97	110	186	1.00E-44	154
1	A105_10297T0	Z519_10962T0	96.1	77	3	0	1	77	144	220	9.00E-47	151
2	A105_10357T0	Z519_11029T0	96.1	462	18	0	1	462	153	614	0	937
2	A105_13108T0	Z519_11235T0	96.1	359	14	0	1	359	1	359	0	727
88	A105_13447T0	Z519_12173T0	96.1	513	20	0	1	513	1	513	0	999
5	A105_00704T0	Z519_00698T0	96.11	386	15	0	1	386	1	386	0	760
11	A105_01193T0	Z519_08460T0	96.11	283	11	0	1	283	1	283	0	563
29	A105_01514T0	Z519_01903T0	96.11	360	14	0	1	360	1	360	0	719
1	A105_02800T0	Z519_07332T0	96.11	360	14	0	1	360	1	360	0	716
2	A105_04018T0	Z519_03313T0	96.11	1337	52	0	1	1337	1	1337	0	2518
37	A105_05032T0	Z519_07922T0	96.11	540	21	0	1	540	1	540	0	1083
16	A105_05575T0	Z519_03688T0	96.11	565	22	0	1	565	1	565	0	1136
1	A105_06637T0	Z519_09028T0	96.11	411	15	1	1	411	1	410	0	821
5	A105_07024T0	Z519_06477T0	96.11	1260	48	1	1	1259	1	1260	0	2471
1	A105_08957T0	Z519_05060T0	96.11	592	22	1	1	592	1	591	0	1002
14	A105_09206T0	Z519_05320T0	96.11	334	13	0	1	334	1	334	0	661
2	A105_10330T0	Z519_10996T0	96.11	873	32	2	1	872	1	872	0	1698
1	A105_11222T0	Z519_08858T0	96.11	411	13	1	1	411	1	408	0	786
4	A105_11413T0	Z519_02046T0	96.11	591	23	0	1	591	1	591	0	1184
1	A105_12561T0	Z519_05485T0	96.11	514	19	1	1	513	1	514	0	1011
157	A105_13393T0	Z519_04232T0	96.11	257	10	0	1	257	1	257	5.00E-174	483
1	A105_01312T0	Z519_08576T0	96.12	850	33	0	1	850	1	850	0	1705
44	A105_01398T0	Z519_11869T0	96.12	412	13	1	1	412	1	409	0	801
24	A105_01840T0	Z519_01623T0	96.12	206	8	0	1	206	1	206	4.00E-147	410
5	A105_01913T0	Z519_01548T0	96.12	696	26	1	1	695	1	696	0	1313
2	A105_01917T0	Z519_01544T0	96.12	618	24	0	1	618	1	618	0	1236
2	A105_02544T0	Z519_07075T0	96.12	232	9	0	1	232	1	232	4.00E-165	459
15	A105_02667T0	Z519_07199T0	96.12	258	10	0	1	258	159	416	0	518
160	A105_03180T0	Z519_10029T0	96.12	490	19	0	5	494	28	517	0	947
4	A105_03417T0	Z519_10239T0	96.12	464	18	0	1	464	1	464	0	920
4	A105_03781T0	Z519_03103T0	96.12	335	13	0	1	335	1	335	0	674
6	A105_04104T0	Z519_03377T0	96.12	4076	141	5	1	4066	1	4069	0	7556
11	A105_04323T0	Z519_03600T0	96.12	876	34	0	1	876	1	876	0	1719
30	A105_04484T0	Z519_02313T0	96.12	258	10	0	108	365	1	258	8.00E-173	485

1	A105_07212T0	Z519_05790T0	96.12	1519	59	0	1	1519	1	1519	0	2906
1	A105_08481T0	Z519_05571T0	96.12	258	10	0	1	258	1	258	3.00E-155	436
5	A105_08560T0	Z519_04084T0	96.12	361	14	0	1	361	1	361	0	717
5	A105_08608T0	Z519_04041T0	96.12	490	19	0	31	520	1	490	0	977
9	A105_10824T0	Z519_12244T0	96.12	2188	79	2	1	2182	1	2188	0	4269
25	A105_00269T0	Z519_00278T0	96.13	568	22	0	1	568	1	568	0	1113
2	A105_00474T0	Z519_00481T0	96.13	465	17	1	1	465	89	552	0	823
1	A105_00610T0	Z519_00621T0	96.13	517	19	1	1	517	1	516	0	1019
1	A105_02382T0	Z519_11589T0	96.13	155	6	0	1	155	1	155	2.00E-107	306
16	A105_02625T0	Z519_07152T0	96.13	724	28	0	1	724	1	724	0	1441
19	A105_03800T0	Z519_03121T0	96.13	646	25	0	1	646	1	646	0	1147
1	A105_04155T0	Z519_03435T0	96.13	413	16	0	1	413	1	413	0	783
10	A105_04808T0	Z519_02634T0	96.13	310	12	0	1	310	1	310	0	609
6	A105_05902T0	Z519_04832T0	96.13	155	6	0	1	155	1	155	2.00E-106	303
6	A105_06037T0	Z519_04701T0	96.13	439	17	0	1	439	1	439	0	880
1	A105_07373T0	Z519_05945T0	96.13	542	21	0	1	542	1	542	0	1060
12	A105_08909T0	Z519_03743T0	96.13	284	11	0	1	284	1	284	0	560
2	A105_09675T0	Z519_10532T0	96.13	388	14	1	1	388	1	387	0	766
51	A105_11412T0	Z519_02047T0	96.13	569	22	0	1	569	1	569	0	1085
1	A105_11919T0	Z519_02021T0	96.13	362	14	0	1	362	1	362	0	673
1	A105_12257T0	Z519_04496T0	96.13	362	14	0	1	362	1	362	0	713
3	A105_00383T0	Z519_00385T0	96.14	415	16	0	1	415	1	415	0	804
5	A105_00493T0	Z519_00498T0	96.14	1010	39	0	1	1010	1	1010	0	2001
29	A105_00933T0	Z519_00868T0	96.14	259	6	1	1	259	1	255	0	507
25	A105_03165T0	Z519_10015T0	96.14	285	11	0	1	285	1	285	0	553
1	A105_03681T0	Z519_03000T0	96.14	492	19	0	1	492	1	492	0	968
1	A105_06933T0	Z519_06566T0	96.14	700	27	0	1	700	1	700	0	1404
21	A105_07502T0	Z519_06068T0	96.14	570	22	0	1	570	1	570	0	1104
1	A105_08484T0	Z519_05566T0	96.14	311	12	0	1	311	1	311	0	582
1	A105_10162T0	Z519_12691T0	96.14	259	10	0	1	259	1	259	8.00E-178	493
7	A105_10439T0	Z519_11315T0	96.14	596	23	0	24	619	3	598	0	1182
75	A105_11673T0	Z519_08623T0	96.14	596	23	0	1	596	1	596	0	1093
24	A105_13243T0	Z519_12170T0	96.14	674	26	0	1	674	18	691	0	1345
1	A105_00320T0	Z519_00328T0	96.15	624	24	0	1	624	1	624	0	1089
2	A105_00550T0	Z519_00560T0	96.15	493	19	0	1	493	1	493	0	947

5	A105_01117T0	Z519_08391T0	96.15	390	15	0	1	390	1	390	0	769
12	A105_01419T0	Z519_11849T0	96.15	1274	49	0	1	1274	1	1274	0	2491
1	A105_01510T0	Z519_01907T0	96.15	442	17	0	1	442	1	442	0	880
1	A105_01796T0	Z519_01668T0	96.15	104	4	0	1	104	1	104	6.00E-71	209
1	A105_02035T0	Z519_01421T0	96.15	104	4	0	18	121	9	112	4.00E-69	206
1	A105_02644T0	Z519_07176T0	96.15	441	17	0	1	441	1	441	0	840
3	A105_03460T0	Z519_09585T0	96.15	312	11	1	1	312	185	495	0	588
7	A105_04717T0	Z519_02547T0	96.15	467	14	1	1	467	1	463	0	922
1	A105_05730T0	Z519_11118T0	96.15	442	17	0	1	442	1	442	0	882
112	A105_06065T0	Z519_04675T0	96.15	286	11	0	1	286	1	286	0	574
1	A105_06396T0	Z519_10645T0	96.15	182	7	0	6	187	2	183	1.00E-128	363
19	A105_07606T0	Z519_06169T0	96.15	571	22	0	1	571	1	571	0	1123
1	A105_07706T0	Z519_07529T0	96.15	130	5	0	1	130	78	207	3.00E-78	232
27	A105_08329T0	Z519_09543T0	96.15	598	23	0	1	598	1	598	0	1176
49	A105_08381T0	Z519_05663T0	96.15	649	25	0	2	650	149	797	0	1300
1	A105_08533T0	Z519_05519T0	96.15	286	11	0	1	286	1	286	0	551
15	A105_08809T0	Z519_03845T0	96.15	649	25	0	1	649	1	649	0	1222
1	A105_09077T0	Z519_05188T0	96.15	338	13	0	1	338	1	338	0	677
1	A105_10409T0	Z519_11286T0	96.15	338	13	0	1	338	1	338	0	615
13	A105_10770T0	Z519_12295T0	96.15	286	11	0	7	292	1	286	0	566
9	A105_10776T0	Z519_12289T0	96.15	312	12	0	1	312	1	312	0	596
2	A105_11973T0	Z519_05759T0	96.15	545	18	1	1	545	1	542	0	1028
2	A105_13112T0	Z519_11238T0	96.15	442	16	1	1	441	1	442	0	822
1	A105_01123T0	Z519_08396T0	96.16	417	16	0	1	417	1	417	0	769
1	A105_02352T0	Z519_11619T0	96.16	495	19	0	1	495	1	495	0	970
31	A105_02915T0	Z519_12761T0	96.16	625	24	0	7	631	110	734	0	1196
7	A105_04812T0	Z519_02637T0	96.16	651	25	0	1	651	1	651	0	1311
1	A105_09039T0	Z519_05144T0	96.16	1693	44	3	1	1691	1	1674	0	3150
19	A105_09961T0	Z519_04186T0	96.16	782	28	1	1	780	1	782	0	1423
1	A105_10692T0	Z519_09878T0	96.16	964	37	0	1	964	1	964	0	1897
1	A105_12052T0	Z519_05679T0	96.16	443	16	1	1	442	1	443	0	798
1	A105_00013T0	Z519_00012T0	96.17	339	13	0	1	339	1	339	0	650
7	A105_00936T0	Z519_00871T0	96.17	235	9	0	1	235	1	235	2.00E-154	431
6	A105_01068T0	Z519_00990T0	96.17	366	12	1	1	364	1	366	0	711
1	A105_01474T0	Z519_11792T0	96.17	235	9	0	1	235	1	235	4.00E-168	466

1	A105_02163T0	Z519_01318T0	96.17	183	7	0	1	183	1	183	1.00E-120	342
165	A105_02483T0	Z519_07017T0	96.17	261	10	0	1	261	3	263	0	516
1	A105_02685T0	Z519_07218T0	96.17	183	7	0	29	211	29	211	2.00E-87	261
4	A105_02693T0	Z519_07226T0	96.17	444	17	0	1	444	75	518	0	879
101	A105_04083T0	Z519_03358T0	96.17	496	19	0	1	496	1	496	0	993
93	A105_04355T0	Z519_02179T0	96.17	653	25	0	1	653	1	653	0	1322
148	A105_05599T0	Z519_03708T0	96.17	496	19	0	1	496	1	496	0	993
202	A105_06825T0	Z519_06676T0	96.17	261	10	0	1	261	1	261	0	517
9	A105_07613T0	Z519_06176T0	96.17	601	23	0	1	601	1	601	0	1201
1	A105_08839T0	Z519_03814T0	96.17	183	7	0	1	183	1	183	5.00E-128	360
6	A105_09302T0	Z519_01264T0	96.17	209	8	0	1	209	1	209	2.00E-142	399
3	A105_09663T0	Z519_10541T0	96.17	652	25	0	1	652	8	659	0	1184
15	A105_09669T0	Z519_10537T0	96.17	418	16	0	1	418	1	418	0	835
2	A105_11298T0	Z519_02142T0	96.17	313	12	0	1	313	1	313	0	629
1	A105_11511T0	Z519_08789T0	96.17	418	16	0	1	418	1	418	0	825
1	A105_11612T0	Z519_08684T0	96.17	235	9	0	1	235	1	235	7.00E-144	405
2	A105_00052T0	Z519_00051T0	96.18	314	12	0	1	314	1	314	0	589
4	A105_01048T0	Z519_00971T0	96.18	262	10	0	1	262	1	262	0	513
2	A105_01819T0	Z519_01645T0	96.18	550	19	1	1	550	1	548	0	965
1	A105_02037T0	Z519_01419T0	96.18	262	10	0	1	262	1	262	0	523
2	A105_02125T0	Z519_01353T0	96.18	288	11	0	1	288	1	288	0	565
1	A105_03961T0	Z519_03260T0	96.18	262	10	0	1	262	1	262	0	514
1	A105_04711T0	Z519_02541T0	96.18	629	20	1	1	625	1	629	0	1167
1	A105_05372T0	Z519_08245T0	96.18	131	5	0	1	131	35	165	1.00E-88	258
1	A105_06032T0	Z519_04706T0	96.18	759	29	0	1	759	1	759	0	1466
18	A105_06642T0	Z519_09024T0	96.18	157	6	0	1	157	94	250	4.00E-108	311
40	A105_09789T0	Z519_10431T0	96.18	498	19	0	1	498	1	498	0	995
6	A105_11380T0	Z519_02077T0	96.18	497	19	0	1	497	1	497	0	960
24	A105_13016T0	Z519_04433T0	96.18	1255	48	0	1	1255	1	1255	0	2413
1	A105_01208T0	Z519_08475T0	96.19	578	22	0	1	578	1	578	0	1106
1	A105_01494T0	Z519_01920T0	96.19	105	4	0	1	105	1	105	6.00E-63	189
4	A105_01523T0	Z519_01896T0	96.19	473	18	0	1	473	1	473	0	960
147	A105_01558T0	Z519_01863T0	96.19	525	20	0	1	525	1	525	0	980
4	A105_02017T0	Z519_01440T0	96.19	735	28	0	1	735	1	735	0	1446
5	A105_02787T0	Z519_07319T0	96.19	341	13	0	1	341	1	341	0	657

2	A105_04543T0	Z519_02370T0	96.19	341	5	1	1	341	1	333	0	641
2	A105_05051T0	Z519_07942T0	96.19	367	14	0	1	367	1	367	0	725
104	A105_06833T0	Z519_06668T0	96.19	289	11	0	1	289	1	289	0	563
1	A105_07981T0	Z519_07817T0	96.19	473	18	0	1	473	1	473	0	927
1	A105_09158T0	Z519_05269T0	96.19	394	15	0	1	394	1	394	0	788
1	A105_09161T0	Z519_05272T0	96.19	289	11	0	1	289	1	289	0	521
63	A105_09683T0	Z519_10524T0	96.19	683	26	0	1	683	1	683	0	1346
1	A105_10652T0	Z519_09839T0	96.19	2307	86	2	1	2307	1	2305	0	4337
2	A105_10741T0	Z519_09929T0	96.19	578	22	0	1	578	1	578	0	1128
14	A105_10769T0	Z519_12296T0	96.19	315	12	0	6	320	11	325	0	634
1	A105_02794T0	Z519_07326T0	96.2	316	12	0	1	316	1	316	0	629
49	A105_03270T0	Z519_10119T0	96.2	737	28	0	1	737	1	737	0	1480
2	A105_03836T0	Z519_03154T0	96.2	316	12	0	1	316	1	316	0	639
1	A105_06304T0	Z519_10718T0	96.2	1079	41	0	1	1079	1	1079	0	2151
9	A105_06428T0	Z519_10613T0	96.2	527	20	0	1	527	1	527	0	1050
1	A105_07168T0	Z519_06333T0	96.2	158	1	1	1	158	1	153	7.00E-109	310
2	A105_07976T0	Z519_07814T0	96.2	421	16	0	1	421	85	505	0	838
1	A105_08222T0	Z519_09444T0	96.2	79	3	0	1	79	1	79	2.00E-53	165
3	A105_10656T0	Z519_09843T0	96.2	553	21	0	1	553	1	553	0	1109
13	A105_10876T0	Z519_11415T0	96.2	790	30	0	1	790	1	790	0	1520
3	A105_10897T0	Z519_11437T0	96.2	711	25	1	1	709	1	711	0	1398
1	A105_10969T0	Z519_11503T0	96.2	553	21	0	1	553	1	553	0	1097
8	A105_00088T0	Z519_00087T0	96.21	290	11	0	1	290	1	290	0	574
30	A105_01272T0	Z519_08538T0	96.21	686	26	0	1	686	1	686	0	1395
6	A105_02205T0	Z519_11771T0	96.21	317	11	1	1	316	1	317	0	624
9	A105_02608T0	Z519_07137T0	96.21	211	8	0	1	211	1	211	1.00E-149	417
72	A105_02640T0	Z519_07172T0	96.21	792	25	1	3	794	50	836	0	1506
1	A105_02967T0	Z519_12061T0	96.21	290	11	0	1	290	1018	1307	0	581
1	A105_05820T0	Z519_04912T0	96.21	448	17	0	1	448	1	448	0	728
1	A105_06688T0	Z519_08981T0	96.21	211	8	0	1	211	1	211	2.00E-144	404
13	A105_06692T0	Z519_08977T0	96.21	448	17	0	1	448	1	448	0	890
153	A105_06856T0	Z519_06647T0	96.21	501	19	0	1	501	27	527	0	965
1	A105_06870T0	Z519_06630T0	96.21	317	12	0	1	317	1	317	0	629
1	A105_07126T0	Z519_06375T0	96.21	949	36	0	1	949	1	949	0	1828
12	A105_09093T0	Z519_05203T0	96.21	871	33	0	1	871	1	871	0	1689

1	A105_09894T0	Z519_10323T0	96.21	132	4	1	1	132	1	131	4.00E-78	230
3	A105_10107T0	Z519_04256T0	96.21	422	15	1	1	422	1	421	0	833
1	A105_11590T0	Z519_08706T0	96.21	633	23	1	1	633	1	632	0	1252
1	A105_12221T0	Z519_04532T0	96.21	211	8	0	1	211	1	211	9.00E-135	380
45	A105_13358T0	Z519_09301T0	96.21	501	19	0	1	501	217	717	0	1016
1	A105_00170T0	Z519_00170T0	96.22	1033	31	1	18	1050	18	1042	0	1937
6	A105_01107T0	Z519_08381T0	96.22	687	26	0	1	687	1	687	0	1334
1	A105_01311T0	Z519_08575T0	96.22	662	25	0	1	662	1	662	0	1286
2	A105_02288T0	Z519_11688T0	96.22	502	19	0	1	502	1	502	0	998
2	A105_04691T0	Z519_02520T0	96.22	1586	60	0	1	1586	1	1586	0	2984
2	A105_06457T0	Z519_09203T0	96.22	529	19	1	1	529	1	528	0	924
87	A105_06708T0	Z519_08961T0	96.22	556	17	1	1	552	1	556	0	1103
9	A105_07283T0	Z519_05862T0	96.22	476	18	0	1	476	158	633	0	956
1	A105_07909T0	Z519_07739T0	96.22	608	23	0	1	608	1	608	0	1181
5	A105_08184T0	Z519_09407T0	96.22	397	15	0	1	397	187	583	0	793
1	A105_08261T0	Z519_09483T0	96.22	185	7	0	1	185	1	185	2.00E-108	311
3	A105_09254T0	Z519_05362T0	96.22	476	18	0	1	476	1	476	0	931
1	A105_10556T0	Z519_12587T0	96.22	370	14	0	1	370	1	370	0	732
4	A105_11091T0	Z519_06891T0	96.22	344	12	1	1	344	1	343	0	619
39	A105_11328T0	Z519_02131T0	96.22	899	34	0	1	899	1	899	0	1757
8	A105_12876T0	Z519_07479T0	96.22	344	13	0	12	355	12	355	0	679
1	A105_13429T0	Z519_12202T0	96.22	370	14	0	1	370	1	370	0	709
3	A105_00194T0	Z519_00196T0	96.23	398	15	0	1	398	1	398	0	780
10	A105_00745T0	Z519_00738T0	96.23	451	17	0	1	451	1	451	0	897
1	A105_00853T0	Z519_00801T0	96.23	318	12	0	1	318	1	318	0	597
40	A105_01322T0	Z519_08586T0	96.23	477	18	0	1	477	1	477	0	927
3	A105_02726T0	Z519_07261T0	96.23	265	10	0	1	265	1	265	0	515
1	A105_03468T0	Z519_09593T0	96.23	398	15	0	1	398	1	398	0	796
1	A105_05253T0	Z519_08124T0	96.23	106	4	0	1	106	1	106	2.00E-64	192
1	A105_08689T0	Z519_03970T0	96.23	451	17	0	1	451	1	451	0	881
19	A105_13205T0	Z519_12491T0	96.23	530	20	0	16	545	16	545	0	988
71	A105_01052T0	Z519_00975T0	96.24	691	26	0	45	735	372	1062	0	1238
3	A105_01396T0	Z519_11871T0	96.24	372	14	0	77	448	146	517	0	748
78	A105_02259T0	Z519_11720T0	96.24	1064	40	0	1	1064	1	1064	0	2136
120	A105_02603T0	Z519_07132T0	96.24	479	18	0	5	483	2	480	0	938

1	A105_02744T0	Z519_07277T0	96.24	266	10	0	1	266	1	266	0	526
43	A105_05910T0	Z519_04824T0	96.24	319	12	0	1	319	1	319	0	636
1	A105_06033T0	Z519_04705T0	96.24	585	22	0	1	585	1	585	0	1105
2	A105_07131T0	Z519_06370T0	96.24	692	26	0	1	692	1	692	0	1266
2	A105_07158T0	Z519_06343T0	96.24	1038	37	2	22	1059	23	1058	0	1946
3	A105_07861T0	Z519_07691T0	96.24	932	35	0	26	957	1	932	0	1766
63	A105_08622T0	Z519_04028T0	96.24	559	21	0	1	559	1	559	0	1095
14	A105_08651T0	Z519_04005T0	96.24	266	10	0	1	266	1	266	0	540
1	A105_09465T0	Z519_01121T0	96.24	639	24	0	1	639	12	650	0	1233
2	A105_11096T0	Z519_06896T0	96.24	399	15	0	1	399	1	399	0	781
1	A105_11502T0	Z519_08780T0	96.24	691	26	0	1	691	1	691	0	1339
1	A105_11560T0	Z519_11536T0	96.24	852	32	0	1	852	1	852	0	1649
6	A105_00360T0	Z519_00358T0	96.25	400	15	0	1	400	1	400	0	776
1	A105_01984T0	Z519_01475T0	96.25	347	13	0	1	347	1	347	0	658
1	A105_02529T0	Z519_07059T0	96.25	347	13	0	1	347	1	347	0	595
3	A105_02588T0	Z519_07118T0	96.25	347	13	0	1	347	53	399	0	624
3	A105_03077T0	Z519_11961T0	96.25	293	11	0	2	294	1	293	0	585
1	A105_03293T0	Z519_10141T0	96.25	1466	55	0	1	1466	22	1487	0	2874
7	A105_03387T0	Z519_10208T0	96.25	507	19	0	1	507	1	507	0	991
1	A105_03403T0	Z519_10224T0	96.25	400	15	0	1	400	1	400	0	762
81	A105_04490T0	Z519_02317T0	96.25	586	22	0	1	586	1	586	0	1141
3	A105_04672T0	Z519_02501T0	96.25	293	11	0	1	293	42	334	0	573
1	A105_05345T0	Z519_08218T0	96.25	267	10	0	1	267	1	267	8.00E-171	476
53	A105_05754T0	Z519_04983T0	96.25	827	31	0	139	965	1	827	0	1652
1	A105_06404T0	Z519_10637T0	96.25	347	13	0	1	347	1	347	0	685
3	A105_06978T0	Z519_06518T0	96.25	267	9	1	1	266	1	267	0	530
2	A105_07998T0	Z519_07834T0	96.25	400	15	0	1	400	162	561	0	781
88	A105_09994T0	Z519_04174T0	96.25	507	13	1	1	501	1	507	0	1008
2	A105_10292T0	Z519_10958T0	96.25	560	21	0	1	560	1	560	0	1129
1	A105_10393T0	Z519_11269T0	96.25	1201	45	0	1	1201	1	1201	0	2320
1	A105_10402T0	Z519_11280T0	96.25	293	11	0	1	293	1	293	0	589
1	A105_10419T0	Z519_11295T0	96.25	267	10	0	23	289	23	289	9.00E-180	500
2	A105_11506T0	Z519_08784T0	96.25	534	20	0	36	569	14	547	0	1072
134	A105_11952T0	Z519_05781T0	96.25	560	21	0	1	560	1	560	0	1099
1	A105_11978T0	Z519_05754T0	96.25	240	9	0	6	245	10	249	3.00E-169	470

1	A105_00172T0	Z519_00173T0	96.26	803	26	1	1	803	1	799	0	1560
1	A105_01829T0	Z519_01635T0	96.26	294	11	0	1	294	1	294	0	537
89	A105_05268T0	Z519_08141T0	96.26	481	18	0	1	481	13	493	0	927
1	A105_05328T0	Z519_08202T0	96.26	722	27	0	1	722	1	722	0	1266
4	A105_05356T0	Z519_08230T0	96.26	187	7	0	1	187	69	255	3.00E-132	380
1	A105_06238T0	Z519_10773T0	96.26	401	15	0	1	401	1	401	0	713
1	A105_07258T0	Z519_05837T0	96.26	294	11	0	1	294	1	294	0	544
1	A105_07274T0	Z519_05852T0	96.26	401	15	0	1	401	1	401	0	810
10	A105_08088T0	Z519_04312T0	96.26	508	19	0	1	508	1	508	0	984
1	A105_08499T0	Z519_05553T0	96.26	401	14	1	1	401	1	400	0	754
6	A105_08584T0	Z519_04061T0	96.26	2301	86	0	1	2301	1	2301	0	4581
1	A105_09130T0	Z519_05241T0	96.26	2166	81	0	1	2166	1	2166	0	4110
3	A105_11523T0	Z519_11576T0	96.26	721	21	1	1	721	1	715	0	1369
1	A105_13038T0	Z519_04456T0	96.26	294	11	0	1	294	1	294	0	577
5	A105_01105T0	Z519_08380T0	96.27	911	34	0	1	911	1	911	0	1771
1	A105_01282T0	Z519_08547T0	96.27	268	10	0	56	323	1	268	0	531
1	A105_02272T0	Z519_11705T0	96.27	161	6	0	1	161	1	161	9.00E-114	322
1	A105_02619T0	Z519_07147T0	96.27	241	9	0	1	241	1	241	1.00E-144	407
2	A105_02757T0	Z519_07289T0	96.27	322	11	1	14	335	2	322	0	599
1	A105_02940T0	Z519_12088T0	96.27	563	21	0	5	567	31	593	0	1145
2	A105_04625T0	Z519_02452T0	96.27	885	33	0	1	885	1	885	0	1720
1	A105_04938T0	Z519_02762T0	96.27	161	6	0	1	161	1	161	7.00E-110	312
2	A105_07552T0	Z519_06115T0	96.27	832	31	0	1	832	1	832	0	1603
7	A105_07755T0	Z519_07569T0	96.27	536	20	0	1	536	1	536	0	1043
1	A105_09771T0	Z519_10451T0	96.27	429	16	0	1	429	1	429	0	848
47	A105_10151T0	Z519_04302T0	96.27	375	14	0	1	375	1	375	0	723
2	A105_10811T0	Z519_12257T0	96.27	510	19	0	1	510	1	510	0	1023
1	A105_12374T0	Z519_12458T0	96.27	134	5	0	1	134	1	134	2.00E-86	251
1	A105_12836T0	Z519_07439T0	96.27	134	5	0	1	134	1	134	8.00E-94	270
6	A105_01039T0	Z519_00963T0	96.28	430	16	0	1	430	1	430	0	867
1	A105_01841T0	Z519_01622T0	96.28	215	8	0	1	215	1	215	1.00E-149	417
27	A105_03369T0	Z519_10191T0	96.28	619	23	0	1	619	1	619	0	1229
3	A105_04122T0	Z519_03400T0	96.28	376	14	0	1	376	1	376	0	718
1	A105_04167T0	Z519_03445T0	96.28	349	13	0	1	349	1	349	0	686
6	A105_05249T0	Z519_08120T0	96.28	188	7	0	1	188	1	188	7.00E-131	368

1	A105_05884T0	Z519_04850T0	96.28	430	16	0	1	430	1	430	0	837
3	A105_06243T0	Z519_10768T0	96.28	188	7	0	1	188	1	188	5.00E-123	348
10	A105_06280T0	Z519_10742T0	96.28	349	13	0	1	349	1	349	0	658
1	A105_06849T0	Z519_06654T0	96.28	188	7	0	1	188	77	264	1.00E-132	375
1	A105_08178T0	Z519_09402T0	96.28	242	9	0	1	242	1	242	2.00E-161	450
11	A105_09318T0	Z519_01248T0	96.28	484	18	0	1	484	1	484	0	946
1	A105_10142T0	Z519_04293T0	96.28	457	17	0	1	457	1	457	0	906
40	A105_10332T0	Z519_10998T0	96.28	591	21	1	1	591	1	590	0	1168
1	A105_10956T0	Z519_11493T0	96.28	753	28	0	1	753	1	753	0	1236
135	A105_11382T0	Z519_02075T0	96.28	296	11	0	1	296	1	296	0	587
90	A105_12949T0	Z519_11088T0	96.28	538	18	1	1	538	1	536	0	1014
2	A105_13204T0	Z519_12490T0	96.28	1075	39	1	1	1075	1	1074	0	1922
9	A105_13312T0	Z519_05021T0	96.28	215	8	0	1	215	124	338	2.00E-150	424
88	A105_00144T0	Z519_00145T0	96.29	512	19	0	1	512	1	512	0	1013
13	A105_00742T0	Z519_00735T0	96.29	377	14	0	1	377	1	377	0	752
4	A105_05663T0	Z519_11185T0	96.29	404	15	0	1	404	1	404	0	812
15	A105_05679T0	Z519_11170T0	96.29	350	13	0	1	350	1	350	0	688
13	A105_05803T0	Z519_04930T0	96.29	431	16	0	1	431	1	431	0	848
1	A105_06875T0	Z519_06625T0	96.29	809	30	0	1	809	1	809	0	1526
1	A105_11857T0	Z519_01961T0	96.29	512	18	1	1	512	1	511	0	825
1	A105_00695T0	Z519_00689T0	96.3	675	25	0	1	675	1	675	0	1356
3	A105_00727T0	Z519_00719T0	96.3	1271	46	1	6	1276	1	1270	0	2469
1	A105_01082T0	Z519_01001T0	96.3	1378	51	0	1	1378	82	1459	0	2681
12	A105_01119T0	Z519_08393T0	96.3	351	13	0	1	351	1	351	0	696
3	A105_01402T0	Z519_11865T0	96.3	1136	41	1	1	1135	1	1136	0	2018
1	A105_01606T0	Z519_01812T0	96.3	351	13	0	1	351	1	351	0	701
1	A105_03510T0	Z519_09634T0	96.3	378	14	0	1	378	1	378	0	754
1	A105_03833T0	Z519_03151T0	96.3	459	17	0	1	459	1	459	0	832
50	A105_03844T0	Z519_03162T0	96.3	676	18	2	1	670	1	675	0	1113
2	A105_05284T0	Z519_08158T0	96.3	432	16	0	1	432	1	432	0	872
10	A105_05660T0	Z519_11188T0	96.3	541	20	0	1	541	1	541	0	1082
35	A105_06099T0	Z519_04639T0	96.3	1512	56	0	1	1512	1	1512	0	3016
1	A105_06298T0	Z519_10725T0	96.3	540	20	0	1	540	28	567	0	1048
1	A105_07152T0	Z519_06349T0	96.3	108	4	0	1	108	1	108	2.00E-41	134
1	A105_08140T0	Z519_09363T0	96.3	514	19	0	1	514	1	514	0	998

1	A105_08151T0	Z519_09375T0	96.3	351	13	0	1	351	1	351	0	692
89	A105_10400T0	Z519_11277T0	96.3	487	18	0	1	487	1	487	0	953
1	A105_10460T0	Z519_11337T0	96.3	460	16	1	1	459	1	460	0	889
2	A105_10728T0	Z519_09916T0	96.3	162	6	0	1	162	1	162	8.00E-109	310
1	A105_10800T0	Z519_12267T0	96.3	757	28	0	1	757	1	757	0	1481
3	A105_11067T0	Z519_06867T0	96.3	324	12	0	1	324	1	324	0	649
22	A105_11365T0	Z519_02093T0	96.3	432	16	0	1	432	1	432	0	805
15	A105_11836T0	Z519_01942T0	96.3	893	31	1	1	893	1	891	0	1786
3	A105_11840T0	Z519_01946T0	96.3	756	28	0	1	756	1	756	0	1484
30	A105_12053T0	Z519_12311T0	96.3	351	13	0	1	351	1	351	0	704
113	A105_12538T0	Z519_02869T0	96.3	243	9	0	1	243	1	243	1.00E-173	484
1	A105_12854T0	Z519_07458T0	96.3	27	1	0	1	27	1	27	4.00E-11	54.3
6	A105_00183T0	Z519_00185T0	96.31	1137	15	1	1	1137	1	1110	0	2130
4	A105_01931T0	Z519_01529T0	96.31	488	18	0	1	488	1	488	0	898
99	A105_02149T0	Z519_01330T0	96.31	569	21	0	1	569	1	569	0	1154
1	A105_02330T0	Z519_11644T0	96.31	461	17	0	1	461	1	461	0	882
14	A105_02536T0	Z519_07066T0	96.31	325	12	0	1	325	1	325	0	648
1	A105_03036T0	Z519_12001T0	96.31	1272	46	1	1	1271	1	1272	0	2520
3	A105_03038T0	Z519_11999T0	96.31	1139	42	0	1	1139	58	1196	0	2257
1	A105_05989T0	Z519_04747T0	96.31	352	13	0	1	352	1	352	0	686
3	A105_06131T0	Z519_04606T0	96.31	569	21	0	18	586	1	569	0	1128
1	A105_06397T0	Z519_10644T0	96.31	461	17	0	1	461	1	461	0	877
33	A105_06880T0	Z519_06619T0	96.31	352	13	0	1	352	1	352	0	715
2	A105_07020T0	Z519_06481T0	96.31	406	15	0	1	406	1	406	0	758
1	A105_07311T0	Z519_05886T0	96.31	569	21	0	1	569	1	569	0	1130
1	A105_07572T0	Z519_06136T0	96.31	217	8	0	1	217	1	217	2.00E-107	311
1	A105_07599T0	Z519_06162T0	96.31	244	9	0	1	244	1	244	3.00E-164	457
1	A105_08422T0	Z519_05628T0	96.31	271	10	0	1	271	1	271	0	504
1	A105_08685T0	Z519_03974T0	96.31	597	22	0	1	597	1	597	0	1165
3	A105_09057T0	Z519_05169T0	96.31	244	9	0	1	244	1	244	2.00E-173	481
7	A105_09461T0	Z519_01125T0	96.31	597	21	1	1	596	1	597	0	1132
1	A105_11296T0	Z519_02144T0	96.31	867	32	0	2	868	109	975	0	1700
4	A105_12631T0	Z519_05406T0	96.31	379	14	0	1	379	1	379	0	733
2	A105_03070T0	Z519_11968T0	96.32	462	17	0	1	462	1	462	0	929
104	A105_03342T0	Z519_10166T0	96.32	598	22	0	1	598	1	598	0	1125

4	A105_03386T0	Z519_10207T0	96.32	380	14	0	1	380	1	380	0	766
11	A105_03638T0	Z519_09767T0	96.32	408	10	1	1	408	1	403	0	788
3	A105_03958T0	Z519_03257T0	96.32	163	6	0	1	163	1	163	2.00E-116	329
13	A105_04616T0	Z519_02443T0	96.32	353	13	0	21	373	1	353	0	711
15	A105_07433T0	Z519_06005T0	96.32	136	5	0	1	136	1	136	9.00E-93	269
1	A105_08124T0	Z519_09347T0	96.32	1306	48	0	1	1306	1	1306	0	2558
4	A105_08944T0	Z519_05047T0	96.32	1683	62	0	1	1683	1	1683	0	3213
1	A105_09152T0	Z519_05262T0	96.32	517	19	0	1	517	1	517	0	1038
53	A105_11692T0	Z519_08603T0	96.32	462	17	0	1	462	1	462	0	927
2	A105_12426T0	Z519_06250T0	96.32	136	5	0	1	136	1	136	1.00E-95	275
1	A105_12454T0	Z519_12657T0	96.32	706	26	0	1	706	1	706	0	1322
3	A105_12606T0	Z519_05436T0	96.32	163	6	0	1	163	1	163	5.00E-103	295
1	A105_13231T0	Z519_12517T0	96.32	408	15	0	1	408	1	408	0	789
64	A105_00954T0	Z519_00888T0	96.33	300	11	0	1	300	1	300	0	594
8	A105_01959T0	Z519_01500T0	96.33	1253	46	0	1	1253	1	1253	0	2295
4	A105_02877T0	Z519_07408T0	96.33	626	23	0	1	626	1	626	0	1258
1	A105_03503T0	Z519_09627T0	96.33	1063	39	0	1	1063	1	1063	0	2022
10	A105_04370T0	Z519_02197T0	96.33	381	8	1	15	395	2	376	0	758
1	A105_04398T0	Z519_02229T0	96.33	463	17	0	1	463	1	463	0	942
6	A105_05101T0	Z519_07991T0	96.33	218	8	0	51	268	1	218	2.00E-158	442
8	A105_05749T0	Z519_04988T0	96.33	518	19	0	1	518	1	518	0	1035
9	A105_06823T0	Z519_06678T0	96.33	491	18	0	1	491	1	491	0	967
24	A105_07504T0	Z519_06070T0	96.33	327	12	0	1	327	1	327	0	648
4	A105_09550T0	Z519_01046T0	96.33	708	19	1	1	701	1	708	0	1398
4	A105_10290T0	Z519_10956T0	96.33	600	22	0	75	674	1	600	0	1189
9	A105_11385T0	Z519_02072T0	96.33	327	12	0	1	327	1	327	0	658
12	A105_11547T0	Z519_11549T0	96.33	300	11	0	1	300	1	300	0	605
2	A105_11550T0	Z519_11546T0	96.33	600	21	1	1	599	1	600	0	1079
1	A105_12802T0	Z519_12787T0	96.33	218	8	0	1	218	102	319	2.00E-142	404
50	A105_13021T0	Z519_04438T0	96.33	1064	39	0	4	1067	48	1111	0	2116
1	A105_01608T0	Z519_01810T0	96.34	191	7	0	1	191	1	191	1.00E-123	350
1	A105_03260T0	Z519_10109T0	96.34	766	25	1	1	766	1	763	0	1547
1	A105_04411T0	Z519_02242T0	96.34	382	14	0	1	382	1	382	0	756
4	A105_04583T0	Z519_02411T0	96.34	273	10	0	1	273	1	273	0	546
2	A105_04924T0	Z519_02749T0	96.34	246	9	0	1	246	8	253	2.00E-173	492

2	A105_06103T0	Z519_04634T0	96.34	629	23	0	19	647	5	633	0	1226
2	A105_07992T0	Z519_07828T0	96.34	191	7	0	1	191	74	264	1.00E-135	383
10	A105_09560T0	Z519_01036T0	96.34	547	20	0	1	547	1	547	0	1097
33	A105_09835T0	Z519_10382T0	96.34	328	12	0	1	328	1	328	0	662
1	A105_10465T0	Z519_11342T0	96.34	738	27	0	1	738	8	745	0	1350
3	A105_10880T0	Z519_11419T0	96.34	573	19	1	1	571	1	573	0	1120
7	A105_11068T0	Z519_06868T0	96.34	711	26	0	1	711	1	711	0	1430
1	A105_11288T0	Z519_02152T0	96.34	574	21	0	1	574	1	574	0	1080
1	A105_12348T0	Z519_12433T0	96.34	547	20	0	1	547	1	547	0	1067
153	A105_13184T0	Z519_04338T0	96.34	519	19	0	1	519	1	519	0	1029
12	A105_13234T0	Z519_12520T0	96.34	465	17	0	1	465	1	465	0	903
2	A105_00014T0	Z519_00013T0	96.35	1041	38	0	1	1041	1	1041	0	2015
84	A105_01491T0	Z519_01923T0	96.35	466	17	0	1	466	65	530	0	872
17	A105_02018T0	Z519_01439T0	96.35	329	12	0	1	329	1	329	0	654
3	A105_02228T0	Z519_11747T0	96.35	684	25	0	1	684	27	710	0	1357
1	A105_02384T0	Z519_11587T0	96.35	493	18	0	1	493	42	534	0	917
5	A105_03828T0	Z519_03146T0	96.35	219	8	0	1	219	1	219	7.00E-160	444
2	A105_04140T0	Z519_03420T0	96.35	301	11	0	1	301	1	301	0	585
7	A105_05182T0	Z519_08071T0	96.35	684	25	0	1	684	1	684	0	1331
1	A105_05546T0	Z519_03664T0	96.35	712	26	0	1	712	1	712	0	1405
1	A105_06237T0	Z519_10774T0	96.35	493	18	0	1	493	1	493	0	802
2	A105_07835T0	Z519_07651T0	96.35	411	14	1	1	411	1	410	0	813
1	A105_01908T0	Z519_01554T0	96.36	275	10	0	1	275	1	275	0	537
1	A105_03449T0	Z519_10271T0	96.36	357	13	0	1	357	1	357	0	709
83	A105_03964T0	Z519_03263T0	96.36	550	9	1	1	539	1	550	0	1061
3	A105_04539T0	Z519_02366T0	96.36	357	13	0	1	357	1	357	0	726
1	A105_05592T0	Z519_03702T0	96.36	247	9	0	1	247	1	247	6.00E-174	483
22	A105_06542T0	Z519_09124T0	96.36	439	16	0	1	439	1	439	0	894
1	A105_06974T0	Z519_06522T0	96.36	110	4	0	1	110	1	110	1.00E-69	206
8	A105_09459T0	Z519_01127T0	96.36	275	10	0	16	290	16	290	0	550
2	A105_09578T0	Z519_01018T0	96.36	247	9	0	1	247	1	247	4.00E-177	490
10	A105_09957T0	Z519_04190T0	96.36	1372	49	1	1	1372	1	1371	0	2625
2	A105_10725T0	Z519_09913T0	96.36	605	22	0	13	617	13	617	0	1065
3	A105_11065T0	Z519_06865T0	96.36	577	12	2	1	568	1	577	0	1080
1	A105_11440T0	Z519_08719T0	96.36	302	11	0	1	302	1	302	0	581

2	A105_02433T0	Z519_06963T0	96.37	798	28	1	1	798	1	797	0	1533
2	A105_02663T0	Z519_07195T0	96.37	744	27	0	1	744	1	744	0	1463
4	A105_02786T0	Z519_07318T0	96.37	468	17	0	1	468	1	468	0	932
2	A105_03194T0	Z519_10045T0	96.37	331	12	0	1	331	1	331	0	638
1	A105_03806T0	Z519_03127T0	96.37	579	21	0	1	579	1	579	0	1158
24	A105_08078T0	Z519_04322T0	96.37	634	23	0	1	634	1	634	0	1267
4	A105_08655T0	Z519_04001T0	96.37	717	26	0	1	717	1	717	0	1427
83	A105_09109T0	Z519_05219T0	96.37	303	11	0	1	303	1	303	0	581
1	A105_09552T0	Z519_01044T0	96.37	606	22	0	1	606	1	606	0	1098
1	A105_09898T0	Z519_10319T0	96.37	1184	43	0	1	1184	1	1184	0	2221
2	A105_00152T0	Z519_00152T0	96.38	359	13	0	2	360	10	368	0	726
152	A105_00199T0	Z519_00201T0	96.38	552	20	0	1	552	1	552	0	1110
1	A105_02129T0	Z519_01349T0	96.38	138	5	0	1	138	1	138	1.00E-97	280
1	A105_03472T0	Z519_09598T0	96.38	497	18	0	1	497	1	497	0	971
9	A105_03985T0	Z519_03283T0	96.38	773	28	0	1	773	1	773	0	1518
1	A105_04448T0	Z519_02280T0	96.38	442	16	0	1	442	1	442	0	878
2	A105_06062T0	Z519_04678T0	96.38	442	16	0	1	442	1	442	0	879
10	A105_06353T0	Z519_10686T0	96.38	221	8	0	12	232	1	221	6.00E-154	432
2	A105_06530T0	Z519_09134T0	96.38	608	22	0	1	608	1	608	0	1213
1	A105_09165T0	Z519_05276T0	96.38	138	5	0	1	138	1	138	3.00E-85	248
5	A105_10002T0	Z519_04166T0	96.38	138	5	0	1	138	1	138	3.00E-94	271
1	A105_10163T0	Z519_12690T0	96.38	1160	38	1	1	1156	1	1160	0	2275
8	A105_10299T0	Z519_10964T0	96.38	719	26	0	12	730	12	730	0	1418
1	A105_00063T0	Z519_00062T0	96.39	1275	46	0	1	1275	1	1275	0	2469
2	A105_00522T0	Z519_00529T0	96.39	610	22	0	48	657	20	629	0	1108
16	A105_00923T0	Z519_00858T0	96.39	610	22	0	1	610	1	610	0	1190
1	A105_01201T0	Z519_08468T0	96.39	83	3	0	1	83	40	122	1.00E-53	165
1	A105_01409T0	Z519_11858T0	96.39	332	12	0	1	332	1	332	0	615
155	A105_01572T0	Z519_01848T0	96.39	498	18	0	18	515	135	632	0	987
74	A105_02128T0	Z519_01350T0	96.39	581	21	0	1	581	1	581	0	1126
1	A105_02290T0	Z519_11686T0	96.39	305	11	0	1	305	1	305	0	581
1	A105_03473T0	Z519_09599T0	96.39	277	9	1	1	276	1	277	1.00E-164	461
1	A105_05275T0	Z519_08148T0	96.39	415	15	0	1	415	1	415	0	825
1	A105_05899T0	Z519_04835T0	96.39	471	16	1	1	471	1	470	0	637
12	A105_06355T0	Z519_10684T0	96.39	416	15	0	1	416	1	416	0	841

147	A105_07325T0	Z519_05897T0	96.39	526	19	0	1	526	1	526	0	1033
116	A105_07376T0	Z519_05948T0	96.39	194	7	0	1	194	1	194	2.00E-133	378
7	A105_08568T0	Z519_04076T0	96.39	609	9	1	32	640	1	596	0	1213
1	A105_08583T0	Z519_04062T0	96.39	360	13	0	1	360	1	360	0	652
1	A105_10420T0	Z519_11296T0	96.39	305	11	0	1	305	1	305	0	601
25	A105_11146T0	Z519_08929T0	96.39	582	17	1	1	582	1	578	0	1102
1	A105_12389T0	Z519_06287T0	96.39	305	11	0	1	305	1	305	0	608
21	A105_12881T0	Z519_07484T0	96.39	554	19	1	78	630	191	744	0	1075
71	A105_00102T0	Z519_00102T0	96.4	472	9	1	1	464	1	472	0	894
104	A105_02453T0	Z519_06985T0	96.4	1305	47	0	1	1305	1	1305	0	2561
5	A105_03691T0	Z519_03010T0	96.4	639	23	0	5	643	1	639	0	1230
3	A105_07095T0	Z519_06404T0	96.4	333	12	0	1	333	1	333	0	664
1	A105_07136T0	Z519_06365T0	96.4	111	4	0	103	213	12	122	8.00E-74	221
9	A105_07653T0	Z519_06218T0	96.4	666	24	0	1	666	1	666	0	1265
173	A105_08192T0	Z519_09416T0	96.4	278	10	0	1	278	1	278	0	550
1	A105_08496T0	Z519_05556T0	96.4	111	4	0	1	111	1	111	3.00E-76	223
9	A105_09022T0	Z519_05127T0	96.4	472	10	1	1	472	1	465	0	931
49	A105_10159T0	Z519_12694T0	96.4	777	28	0	1	777	1	777	0	1562
2	A105_12086T0	Z519_12346T0	96.4	139	5	0	1	139	1	139	5.00E-72	214
1	A105_12290T0	Z519_04464T0	96.4	278	10	0	1	278	1	278	0	544
14	A105_13125T0	Z519_11251T0	96.4	250	9	0	1	250	1	250	1.00E-180	503
84	A105_01789T0	Z519_01675T0	96.41	474	17	0	8	481	1	474	0	908
1	A105_02108T0	Z519_01372T0	96.41	418	15	0	1	418	1	418	0	801
1	A105_02281T0	Z519_11695T0	96.41	473	15	1	1	473	95	565	0	886
12	A105_03416T0	Z519_10238T0	96.41	612	22	0	1	612	1	612	0	1215
5	A105_03567T0	Z519_09689T0	96.41	1477	52	1	1	1477	1	1476	0	2847
1	A105_03855T0	Z519_03173T0	96.41	3232	114	2	1	3231	1	3231	0	6455
2	A105_04431T0	Z519_02263T0	96.41	334	12	0	1	334	1	334	0	668
1	A105_04802T0	Z519_02630T0	96.41	223	7	1	1	222	1	223	1.00E-154	432
5	A105_04903T0	Z519_02729T0	96.41	306	11	0	1	306	1	306	0	611
3	A105_07313T0	Z519_05888T0	96.41	1003	36	0	1	1003	1	1003	0	1955
6	A105_07385T0	Z519_05958T0	96.41	418	15	0	1	418	1	418	0	818
1	A105_08058T0	Z519_07893T0	96.41	195	7	0	1	195	1	195	4.00E-109	313
50	A105_08638T0	Z519_04020T0	96.41	502	18	0	1	502	251	752	0	1008
2	A105_08680T0	Z519_03979T0	96.41	557	20	0	1	557	1	557	0	1105

27	A105_09162T0	Z519_05273T0	96.41	612	22	0	1	612	68	679	0	1206
1	A105_09324T0	Z519_01241T0	96.41	1113	39	1	1	1112	1	1113	0	2078
1	A105_10471T0	Z519_11347T0	96.41	1058	38	0	1	1058	1	1058	0	2097
1	A105_11370T0	Z519_02088T0	96.41	167	6	0	1	167	1	167	4.00E-119	336
1	A105_12887T0	Z519_07490T0	96.41	529	19	0	1	529	1	529	0	1059
7	A105_00454T0	Z519_00461T0	96.42	363	13	0	39	401	10	372	0	704
4	A105_01397T0	Z519_11870T0	96.42	867	28	1	1	864	1	867	0	1651
5	A105_04656T0	Z519_02482T0	96.42	475	17	0	1	475	1	475	0	960
1	A105_06152T0	Z519_04586T0	96.42	642	23	0	1	642	1	642	0	1243
2	A105_07531T0	Z519_06093T0	96.42	586	21	0	1	586	1	586	0	1179
2	A105_08087T0	Z519_04313T0	96.42	419	15	0	1	419	1	419	0	768
4	A105_09024T0	Z519_05129T0	96.42	865	31	0	1	865	1	865	0	1712
5	A105_10646T0	Z519_09834T0	96.42	391	14	0	1	391	1	391	0	701
137	A105_11616T0	Z519_08680T0	96.42	530	19	0	1	530	1	530	0	1050
2	A105_11632T0	Z519_08665T0	96.42	363	13	0	1	363	1	363	0	699
1	A105_00132T0	Z519_00133T0	96.43	196	7	0	7	202	13	208	1.00E-136	384
1	A105_01825T0	Z519_01639T0	96.43	420	15	0	1	420	27	446	0	785
1	A105_01925T0	Z519_01535T0	96.43	112	4	0	1	112	1	112	9.00E-74	217
1	A105_01968T0	Z519_01491T0	96.43	196	7	0	1	196	1	196	7.00E-104	300
98	A105_02158T0	Z519_01324T0	96.43	448	16	0	1	448	1	448	0	848
1	A105_02323T0	Z519_11652T0	96.43	589	19	1	1	589	1	587	0	1152
1	A105_04147T0	Z519_03427T0	96.43	2019	72	0	1	2019	1	2019	0	3611
2	A105_05078T0	Z519_07968T0	96.43	140	5	0	1	140	1	140	3.00E-90	261
2	A105_05859T0	Z519_04875T0	96.43	560	20	0	1	560	1	560	0	1120
1	A105_06000T0	Z519_04736T0	96.43	308	10	1	1	308	1	307	0	570
23	A105_06017T0	Z519_04719T0	96.43	617	22	0	1	617	1	617	0	1217
4	A105_06704T0	Z519_08965T0	96.43	364	13	0	1	364	1	364	0	733
4	A105_06940T0	Z519_06559T0	96.43	336	12	0	1	336	1	336	0	679
1	A105_07281T0	Z519_05860T0	96.43	252	9	0	1	252	1	252	0	501
2	A105_07559T0	Z519_06123T0	96.43	364	12	1	1	363	1	364	0	724
3	A105_09278T0	Z519_01288T0	96.43	476	17	0	1	476	1	476	0	933
1	A105_09293T0	Z519_01272T0	96.43	308	11	0	10	317	1	308	0	588
3	A105_09630T0	Z519_10575T0	96.43	252	9	0	1	252	1	252	0	501
1	A105_10043T0	Z519_04123T0	96.43	532	19	0	1	532	1	532	0	1004
1	A105_11046T0	Z519_06847T0	96.43	168	6	0	1	168	31	198	9.00E-120	340

1	A105_12781T0	Z519_10839T0	96.43	448	16	0	1	448	1	448	0	895
2	A105_02715T0	Z519_07253T0	96.44	450	16	0	1	450	1	450	0	873
1	A105_03986T0	Z519_03284T0	96.44	506	10	1	1	506	1	498	0	919
6	A105_05166T0	Z519_08055T0	96.44	393	14	0	1	393	1	393	0	773
10	A105_06008T0	Z519_04728T0	96.44	618	22	0	1	618	1	618	0	1241
4	A105_07782T0	Z519_07597T0	96.44	562	19	1	1	562	1	561	0	1119
59	A105_07854T0	Z519_07683T0	96.44	872	19	3	1	871	1	861	0	1723
32	A105_13392T0	Z519_04233T0	96.44	337	12	0	1	337	1	337	0	669
5	A105_00831T0	Z519_00777T0	96.45	366	13	0	1	366	1	366	0	724
72	A105_04769T0	Z519_02596T0	96.45	761	27	0	1	761	1	761	0	1525
2	A105_06450T0	Z519_09210T0	96.45	394	14	0	1	394	1	394	0	736
5	A105_08065T0	Z519_07900T0	96.45	507	18	0	1	507	1	507	0	1018
13	A105_08276T0	Z519_09497T0	96.45	592	21	0	1	592	1	592	0	1192
15	A105_08812T0	Z519_03842T0	96.45	197	7	0	1	197	1	197	3.00E-142	397
26	A105_09013T0	Z519_05118T0	96.45	647	23	0	1	647	1	647	0	1290
1	A105_10553T0	Z519_12590T0	96.45	394	9	2	1	390	1	393	0	742
1	A105_12324T0	Z519_12411T0	96.45	479	17	0	1	479	1	479	0	952
3	A105_12337T0	Z519_12423T0	96.45	592	18	1	14	602	14	605	0	1188
4	A105_12427T0	Z519_06249T0	96.45	451	13	1	1	451	1	448	0	838
1	A105_13296T0	Z519_05036T0	96.45	844	30	0	1	844	1	844	0	1619
30	A105_01091T0	Z519_08370T0	96.46	367	13	0	1	367	1	367	0	739
1	A105_01530T0	Z519_01890T0	96.46	395	12	1	1	395	1	393	0	547
11	A105_01904T0	Z519_01558T0	96.46	1130	40	0	1	1130	1	1130	0	2262
1	A105_05764T0	Z519_04973T0	96.46	254	9	0	2	255	1	254	0	504
8	A105_06405T0	Z519_10636T0	96.46	594	19	1	1	592	1	594	0	1085
2	A105_06525T0	Z519_09140T0	96.46	593	21	0	1	593	1	593	0	1108
1	A105_07735T0	Z519_07549T0	96.46	452	15	1	1	451	1	452	0	890
149	A105_09903T0	Z519_10314T0	96.46	565	20	0	1	565	1	565	0	1123
2	A105_10271T0	Z519_10938T0	96.46	198	7	0	1	198	1	198	2.00E-139	390
123	A105_11833T0	Z519_01939T0	96.46	536	19	0	1	536	1	536	0	1014
6	A105_12059T0	Z519_12319T0	96.46	1242	43	1	1	1241	1	1242	0	2362
2	A105_12344T0	Z519_12430T0	96.46	311	11	0	1	311	1	311	0	621
1	A105_12378T0	Z519_12463T0	96.46	933	33	0	1	933	1	933	0	1833
1	A105_04315T0	Z519_03593T0	96.47	425	14	1	1	424	1	425	0	808
4	A105_04824T0	Z519_02649T0	96.47	679	20	1	1	679	1	675	0	1296

3	A105_06508T0	Z519_09157T0	96.47	312	11	0	1	312	1	312	0	632
1	A105_07625T0	Z519_06188T0	96.47	538	19	0	1	538	1	538	0	963
3	A105_08146T0	Z519_09369T0	96.47	737	26	0	1	737	17	753	0	1451
89	A105_08505T0	Z519_05546T0	96.47	481	15	1	10	490	3	481	0	925
2	A105_08620T0	Z519_04029T0	96.47	510	18	0	1	510	1	510	0	1003
1	A105_08963T0	Z519_05066T0	96.47	340	12	0	18	357	1	340	0	676
20	A105_09709T0	Z519_10498T0	96.47	680	24	0	1	680	1	680	0	1264
11	A105_10154T0	Z519_12699T0	96.47	624	22	0	1	624	1	624	0	1168
11	A105_11651T0	Z519_08648T0	96.47	397	14	0	1	397	1	397	0	793
1	A105_12618T0	Z519_05423T0	96.47	340	12	0	107	446	12	351	0	648
8	A105_01241T0	Z519_08508T0	96.48	766	27	0	1	766	1	766	0	1435
8	A105_01747T0	Z519_01691T0	96.48	511	18	0	1	511	1	511	0	988
2	A105_02392T0	Z519_06922T0	96.48	398	14	0	1	398	1	398	0	744
114	A105_02538T0	Z519_07068T0	96.48	795	23	1	1	795	1	790	0	1550
43	A105_02843T0	Z519_07373T0	96.48	993	33	2	1	992	1	992	0	1974
189	A105_03361T0	Z519_10184T0	96.48	284	10	0	1	284	1	284	0	551
19	A105_04719T0	Z519_02549T0	96.48	284	10	0	1	284	1	284	0	573
9	A105_04844T0	Z519_02668T0	96.48	568	19	1	1	568	1	567	0	1083
1	A105_05493T0	Z519_03611T0	96.48	426	15	0	1	426	1	426	0	791
1	A105_05685T0	Z519_11164T0	96.48	142	4	1	1	142	1	141	2.00E-81	239
1	A105_05737T0	Z519_11112T0	96.48	965	32	2	1	964	1	964	0	1809
1	A105_06454T0	Z519_09206T0	96.48	739	25	1	1	739	1	738	0	1401
1	A105_06790T0	Z519_06715T0	96.48	455	16	0	3	457	33	487	0	866
8	A105_06975T0	Z519_06521T0	96.48	199	7	0	1	199	1	199	6.00E-131	369
34	A105_07023T0	Z519_06478T0	96.48	454	16	0	1	454	1	454	0	910
1	A105_07610T0	Z519_06173T0	96.48	142	4	1	1	142	1	141	7.00E-96	275
3	A105_09341T0	Z519_01226T0	96.48	938	28	1	1	933	1	938	0	1704
1	A105_10181T0	Z519_10847T0	96.48	454	16	0	1	454	1	454	0	890
2	A105_10653T0	Z519_09840T0	96.48	994	35	0	1	994	1	994	0	1946
1	A105_10899T0	Z519_11439T0	96.48	341	12	0	1	341	1	341	0	681
125	A105_11658T0	Z519_08641T0	96.48	284	10	0	1	284	1	284	0	529
5	A105_13023T0	Z519_04440T0	96.48	682	21	2	1	681	1	680	0	1288
3	A105_13240T0	Z519_12525T0	96.48	199	7	0	1	199	39	237	4.00E-136	384
1	A105_13332T0	Z519_12809T0	96.48	596	21	0	1	596	1	596	0	1074
1	A105_00202T0	Z519_00204T0	96.49	542	12	2	1	541	1	536	0	998

16	A105_03630T0	Z519_09758T0	96.49	342	12	0	1	342	1	342	0	687
1	A105_03862T0	Z519_03180T0	96.49	171	6	0	1	171	1	171	8.00E-120	339
9	A105_04897T0	Z519_02721T0	96.49	970	34	0	1	970	1	970	0	1895
4	A105_04943T0	Z519_02767T0	96.49	313	11	0	1	313	1	313	0	617
1	A105_05083T0	Z519_07973T0	96.49	1055	34	2	1	1052	1	1055	0	1922
19	A105_06014T0	Z519_04722T0	96.49	542	19	0	1	542	1	542	0	1063
156	A105_07304T0	Z519_05879T0	96.49	513	18	0	1	513	1	513	0	1015
19	A105_07382T0	Z519_05954T0	96.49	627	22	0	1	627	1	627	0	1207
2	A105_07844T0	Z519_07673T0	96.49	513	18	0	1	513	1	513	0	1033
2	A105_09138T0	Z519_05248T0	96.49	370	13	0	1	370	1	370	0	751
16	A105_09866T0	Z519_10351T0	96.49	285	10	0	1	285	1	285	0	573
39	A105_10572T0	Z519_12572T0	96.49	569	20	0	1	569	1	569	0	1076
5	A105_11090T0	Z519_06890T0	96.49	399	14	0	1	399	1	399	0	787
34	A105_11175T0	Z519_08903T0	96.49	598	21	0	1	598	1	598	0	1195
7	A105_12500T0	Z519_02834T0	96.49	313	11	0	1	313	1	313	0	608
138	A105_12622T0	Z519_05418T0	96.49	513	18	0	1	513	1	513	0	1011
154	A105_13408T0	Z519_12471T0	96.49	656	23	0	1	656	1	656	0	1291
1	A105_00361T0	Z519_00360T0	96.5	600	21	0	1	600	18	617	0	1199
5	A105_00627T0	Z519_00638T0	96.5	314	11	0	1	314	1	314	0	640
9	A105_00873T0	Z519_00822T0	96.5	600	21	0	1	600	1	600	0	1212
1	A105_01423T0	Z519_11845T0	96.5	571	20	0	1	571	1	571	0	1147
158	A105_02562T0	Z519_07092T0	96.5	515	18	0	1	515	1	515	0	1013
10	A105_02624T0	Z519_07151T0	96.5	629	22	0	1	629	1	629	0	1262
147	A105_05951T0	Z519_04784T0	96.5	514	18	0	1	514	1	514	0	1027
2	A105_07591T0	Z519_06154T0	96.5	200	7	0	1	200	1	200	7.00E-145	404
1	A105_07673T0	Z519_06237T0	96.5	486	15	2	1	486	1	484	0	938
35	A105_08031T0	Z519_07868T0	96.5	1057	37	0	1	1057	1	1057	0	1976
1	A105_08972T0	Z519_05075T0	96.5	400	14	0	1	400	1	400	0	789
20	A105_10570T0	Z519_12574T0	96.5	1286	43	1	1	1286	129	1412	0	2544
3	A105_11392T0	Z519_02065T0	96.5	371	13	0	1	371	1	371	0	753
1	A105_01257T0	Z519_08523T0	96.51	86	3	0	1	86	1	86	2.00E-54	166
3	A105_02574T0	Z519_07104T0	96.51	229	8	0	1	229	1	229	6.00E-169	468
2	A105_02793T0	Z519_07325T0	96.51	372	13	0	1	372	1	372	0	686
1	A105_02847T0	Z519_07377T0	96.51	229	7	1	1	229	1	228	3.00E-159	444
72	A105_02859T0	Z519_07390T0	96.51	545	19	0	1	545	1	545	0	1014

1	A105_03649T0	Z519_09778T0	96.51	172	6	0	1	172	1	172	9.00E-118	347
1	A105_05132T0	Z519_08022T0	96.51	745	26	0	1	745	1	745	0	1416
1	A105_05257T0	Z519_08130T0	96.51	487	17	0	1	487	1	487	0	939
2	A105_05422T0	Z519_08297T0	96.51	544	19	0	1	544	1	544	0	1055
1	A105_05728T0	Z519_11120T0	96.51	430	15	0	1	430	1	430	0	780
11	A105_08821T0	Z519_03833T0	96.51	344	12	0	1	344	1	344	0	676
18	A105_09568T0	Z519_01028T0	96.51	544	19	0	1	544	1	544	0	1088
84	A105_12208T0	Z519_04543T0	96.51	487	17	0	1	487	7	493	0	959
56	A105_12516T0	Z519_02848T0	96.51	430	15	0	1	430	1	430	0	852
4	A105_00299T0	Z519_00309T0	96.52	861	30	0	1	861	1	861	0	1693
1	A105_00543T0	Z519_00553T0	96.52	402	14	0	1	402	1	402	0	751
4	A105_00920T0	Z519_00855T0	96.52	633	20	1	1	633	1	631	0	1250
1	A105_02528T0	Z519_07058T0	96.52	115	4	0	1	115	1	115	3.00E-34	116
3	A105_02714T0	Z519_07251T0	96.52	287	10	0	1	287	1	287	0	550
45	A105_03393T0	Z519_10214T0	96.52	374	13	0	1	374	1	374	0	747
14	A105_03751T0	Z519_03074T0	96.52	201	7	0	1	201	1	201	4.00E-139	390
1	A105_03818T0	Z519_03137T0	96.52	603	21	0	1	603	1	603	0	1212
1	A105_04725T0	Z519_02555T0	96.52	230	8	0	1	230	1	230	2.00E-150	421
47	A105_04862T0	Z519_02686T0	96.52	1550	48	2	1	1550	145	1688	0	2902
22	A105_05948T0	Z519_04786T0	96.52	316	11	0	1	316	1	316	0	625
6	A105_06258T0	Z519_10755T0	96.52	603	21	0	1	603	1	603	0	1184
4	A105_06518T0	Z519_09144T0	96.52	316	11	0	1	316	1	316	0	633
162	A105_07301T0	Z519_05876T0	96.52	316	11	0	1	316	1	316	0	604
1	A105_08161T0	Z519_09385T0	96.52	1982	69	0	1	1982	1	1982	0	3741
3	A105_10447T0	Z519_11323T0	96.52	517	18	0	1	517	1	517	0	943
1	A105_11189T0	Z519_08893T0	96.52	575	19	1	1	575	1	574	0	1121
3	A105_12695T0	Z519_09813T0	96.52	201	7	0	1	201	1	201	3.00E-142	398
1	A105_00272T0	Z519_00281T0	96.53	288	10	0	1	288	1	288	4.00E-178	496
82	A105_01543T0	Z519_01876T0	96.53	490	17	0	1	490	1	490	0	966
1	A105_02342T0	Z519_11630T0	96.53	461	16	0	1	461	1	461	0	909
103	A105_02581T0	Z519_07111T0	96.53	577	20	0	1	577	1	577	0	1146
10	A105_04183T0	Z519_03462T0	96.53	634	22	0	1	634	1	634	0	1281
3	A105_04596T0	Z519_02424T0	96.53	547	19	0	1	547	1	547	0	1064
64	A105_05514T0	Z519_03628T0	96.53	518	18	0	1	518	1	518	0	1039
4	A105_07892T0	Z519_07723T0	96.53	432	15	0	1	432	1	432	0	858

2	A105_08465T0	Z519_05587T0	96.53	606	21	0	1	606	1	606	0	1171
1	A105_09385T0	Z519_01181T0	96.53	144	5	0	1	144	1	144	4.00E-88	256
140	A105_10341T0	Z519_11012T0	96.53	518	17	1	1	517	1	518	0	1037
2	A105_11330T0	Z519_02129T0	96.53	144	5	0	1	144	1	144	2.00E-98	282
2	A105_12368T0	Z519_12453T0	96.53	202	7	0	1	202	1	202	1.00E-93	275
21	A105_12456T0	Z519_12655T0	96.53	519	18	0	1	519	1	519	0	1031
3	A105_12703T0	Z519_09804T0	96.53	518	18	0	1	518	1	518	0	1041
3	A105_00223T0	Z519_00221T0	96.54	693	24	0	1	693	1	693	0	1378
2	A105_01174T0	Z519_08441T0	96.54	289	10	0	14	302	13	301	0	523
76	A105_01562T0	Z519_01859T0	96.54	578	20	0	1	578	1	578	0	1120
2	A105_02701T0	Z519_07236T0	96.54	1360	46	1	1	1360	1	1359	0	2679
1	A105_03483T0	Z519_09609T0	96.54	492	17	0	1	492	1	492	0	981
2	A105_03507T0	Z519_09631T0	96.54	492	2	1	1	477	1	492	0	979
140	A105_03768T0	Z519_03090T0	96.54	289	10	0	1	289	1	289	0	578
1	A105_04406T0	Z519_02237T0	96.54	260	9	0	1	260	1	260	0	513
1	A105_05310T0	Z519_08185T0	96.54	751	25	1	1	751	1	750	0	1401
1	A105_05911T0	Z519_04823T0	96.54	318	8	1	1	318	1	315	0	537
2	A105_05949T0	Z519_04785T0	96.54	463	16	0	10	472	1	463	0	906
7	A105_07594T0	Z519_06157T0	96.54	347	12	0	1	347	1	347	0	684
21	A105_07883T0	Z519_07714T0	96.54	231	8	0	4	234	1	231	5.00E-167	464
11	A105_08139T0	Z519_09362T0	96.54	549	19	0	1	549	1	549	0	1081
25	A105_09777T0	Z519_10443T0	96.54	463	16	0	1	463	1	463	0	898
5	A105_09922T0	Z519_04218T0	96.54	636	22	0	1	636	1	636	0	1291
21	A105_10239T0	Z519_10905T0	96.54	982	33	1	1	982	1	981	0	1873
16	A105_10296T0	Z519_10961T0	96.54	289	10	0	1	289	1	289	0	585
1	A105_11049T0	Z519_06850T0	96.54	1388	47	1	1	1388	1	1387	0	2523
12	A105_11513T0	Z519_08791T0	96.54	607	21	0	1	607	1	607	0	1225
1	A105_00021T0	Z519_00020T0	96.55	203	7	0	1	203	1	203	5.00E-146	408
1	A105_01850T0	Z519_01614T0	96.55	116	4	0	37	152	6	121	1.00E-75	224
4	A105_02004T0	Z519_01456T0	96.55	290	10	0	1	290	1	290	0	555
1	A105_02470T0	Z519_07002T0	96.55	521	18	0	1	521	1	521	0	832
4	A105_04365T0	Z519_02192T0	96.55	290	10	0	1	290	1	290	0	508
2	A105_04518T0	Z519_02345T0	96.55	319	11	0	1	319	1	319	0	635
1	A105_05457T0	Z519_08334T0	96.55	116	4	0	1	116	1	116	2.00E-79	231
3	A105_05785T0	Z519_04947T0	96.55	812	28	0	1	812	1	812	0	1600

6	A105_05923T0	Z519_04811T0	96.55	1882	62	3	1	1880	1	1881	0	3380
1	A105_06253T0	Z519_10759T0	96.55	695	24	0	1	695	1	695	0	1309
22	A105_06719T0	Z519_06790T0	96.55	550	19	0	1	550	1	550	0	1088
1	A105_07029T0	Z519_06472T0	96.55	232	8	0	16	247	16	247	2.00E-156	438
113	A105_10654T0	Z519_09841T0	96.55	521	18	0	1	521	1	521	0	1023
5	A105_11179T0	Z519_08899T0	96.55	203	7	0	1	203	1	203	3.00E-147	411
1	A105_11428T0	Z519_08708T0	96.55	232	8	0	1	232	1	232	8.00E-150	420
1	A105_11552T0	Z519_11544T0	96.55	348	11	1	1	347	1	348	0	692
2	A105_13327T0	Z519_05006T0	96.55	521	18	0	1	521	1	521	0	1038
1	A105_00529T0	Z519_00536T0	96.56	262	9	0	1	262	1	262	0	515
4	A105_01167T0	Z519_08435T0	96.56	262	9	0	1	262	1	262	0	516
3	A105_01181T0	Z519_08449T0	96.56	786	27	0	1	786	1	786	0	1512
1	A105_01739T0	Z519_01699T0	96.56	610	19	1	1	608	19	628	0	1180
1	A105_03746T0	Z519_03068T0	96.56	320	11	0	1	320	1	320	0	639
1	A105_03762T0	Z519_03084T0	96.56	610	21	0	1	610	1	610	0	1186
3	A105_06760T0	Z519_06746T0	96.56	320	11	0	1	320	1	320	0	639
9	A105_06864T0	Z519_06638T0	96.56	931	32	0	1	931	1	931	0	1843
168	A105_08211T0	Z519_09433T0	96.56	1628	56	0	1	1628	1	1628	0	3206
56	A105_08220T0	Z519_09442T0	96.56	465	12	1	1	461	1	465	0	885
2	A105_08514T0	Z519_05537T0	96.56	320	10	1	1	320	1	319	0	625
1	A105_08882T0	Z519_03771T0	96.56	465	15	1	1	464	1	465	0	771
2	A105_09489T0	Z519_01094T0	96.56	582	20	0	1	582	1	582	0	1143
1	A105_10074T0	Z519_04096T0	96.56	786	27	0	1	786	1	786	0	1535
5	A105_10609T0	Z519_11108T0	96.56	378	13	0	1	378	1	378	0	754
23	A105_10690T0	Z519_09876T0	96.56	378	10	1	1	378	1	375	0	624
3	A105_11869T0	Z519_01973T0	96.56	291	10	0	1	291	1	291	0	559
1	A105_12812T0	Z519_12528T0	96.56	262	9	0	1	262	1	262	0	527
1	A105_00846T0	Z519_00793T0	96.57	233	8	0	1	233	1	233	2.00E-159	444
1	A105_03096T0	Z519_11942T0	96.57	1341	46	0	1	1341	1	1341	0	2219
1	A105_04716T0	Z519_02546T0	96.57	496	17	0	1	496	1	496	0	979
2	A105_05089T0	Z519_07979T0	96.57	554	19	0	1	554	1	554	0	1083
2	A105_05723T0	Z519_11128T0	96.57	990	34	0	1	990	1	990	0	1994
75	A105_06422T0	Z519_10619T0	96.57	700	8	1	1	700	1	684	0	1385
1	A105_07111T0	Z519_06389T0	96.57	554	19	0	1	554	1	554	0	1065
1	A105_08519T0	Z519_05532T0	96.57	321	11	0	1	321	1	321	0	632

2	A105_08775T0	Z519_03881T0	96.57	175	6	0	1	175	3	177	5.00E-116	329
1	A105_08841T0	Z519_03812T0	96.57	525	18	0	1	525	1	525	0	874
3	A105_09323T0	Z519_01242T0	96.57	670	23	0	1	670	325	994	0	1371
1	A105_10248T0	Z519_10913T0	96.57	379	13	0	1	379	1	379	0	760
12	A105_10963T0	Z519_11499T0	96.57	408	13	1	1	407	71	478	0	768
1	A105_12005T0	Z519_05724T0	96.57	583	17	1	1	583	1	580	0	1014
1	A105_12770T0	Z519_10829T0	96.57	408	14	0	1	408	1	408	0	800
4	A105_13340T0	Z519_09329T0	96.57	321	11	0	49	369	1	321	0	621
1	A105_00749T0	Z519_00742T0	96.58	146	5	0	1	146	1	146	5.00E-96	276
9	A105_00898T0	Z519_00847T0	96.58	117	4	0	1	117	1	117	3.00E-81	236
1	A105_01663T0	Z519_01753T0	96.58	146	5	0	1	146	1	146	1.00E-105	300
1	A105_02317T0	Z519_11658T0	96.58	1083	37	0	1	1083	1	1083	0	2142
1	A105_03404T0	Z519_10225T0	96.58	351	12	0	1	351	1	351	0	600
3	A105_03750T0	Z519_03073T0	96.58	263	9	0	1	263	1	263	0	515
1	A105_03874T0	Z519_03192T0	96.58	146	5	0	1	146	1	146	2.00E-103	295
3	A105_03878T0	Z519_03196T0	96.58	876	30	0	1	876	9	884	0	1719
2	A105_04504T0	Z519_02332T0	96.58	234	8	0	1	234	1	234	4.00E-171	474
1	A105_04533T0	Z519_02360T0	96.58	849	25	2	1	846	1	848	0	1636
2	A105_04670T0	Z519_02499T0	96.58	468	16	0	1	468	1	468	0	939
1	A105_04726T0	Z519_02556T0	96.58	584	20	0	1	584	1	584	0	1118
3	A105_05065T0	Z519_07955T0	96.58	409	14	0	1	409	1	409	0	803
1	A105_06944T0	Z519_06554T0	96.58	526	18	0	1	526	1	526	0	1038
58	A105_06973T0	Z519_06523T0	96.58	584	19	1	1	583	1	584	0	1036
7	A105_07026T0	Z519_06475T0	96.58	468	16	0	1	468	1	468	0	945
22	A105_07155T0	Z519_06346T0	96.58	439	15	0	1	439	1	439	0	879
2	A105_07374T0	Z519_05946T0	96.58	292	10	0	1	292	1	292	0	506
1	A105_08205T0	Z519_09427T0	96.58	117	4	0	19	135	19	135	5.00E-82	239
2	A105_09425T0	Z519_01161T0	96.58	263	9	0	1	263	1	263	0	521
9	A105_09426T0	Z519_01160T0	96.58	643	22	0	1	643	1	643	0	1252
1	A105_10101T0	Z519_12640T0	96.58	263	9	0	1	263	1	263	0	523
108	A105_10124T0	Z519_04274T0	96.58	292	10	0	1	292	1	292	0	587
31	A105_10133T0	Z519_04283T0	96.58	526	18	0	1	526	1	526	0	1014
2	A105_10681T0	Z519_09867T0	96.58	380	13	0	1	380	92	471	0	769
1	A105_10753T0	Z519_09941T0	96.58	322	11	0	1	322	1	322	0	655
1	A105_11708T0	Z519_02971T0	96.58	556	19	0	1	556	1	556	0	986

4	A105_00049T0	Z519_00048T0	96.59	352	12	0	47	398	1	352	0	693
154	A105_00175T0	Z519_00177T0	96.59	499	17	0	1	499	1	499	0	965
2	A105_01654T0	Z519_01762T0	96.59	558	19	0	1	558	1	558	0	1071
1	A105_01998T0	Z519_01462T0	96.59	176	6	0	1	176	48	223	3.00E-87	258
1	A105_02763T0	Z519_07295T0	96.59	411	14	0	1	411	45	455	0	823
25	A105_02898T0	Z519_07429T0	96.59	381	13	0	1	381	44	424	0	706
3	A105_03373T0	Z519_10194T0	96.59	293	10	0	1	293	1	293	0	589
2	A105_04577T0	Z519_02405T0	96.59	469	16	0	1	469	1	469	0	946
6	A105_04932T0	Z519_02756T0	96.59	381	13	0	1	381	1	381	0	670
1	A105_06147T0	Z519_04591T0	96.59	499	17	0	1	499	1	499	0	936
3	A105_06348T0	Z519_10691T0	96.59	499	17	0	1	499	1	499	0	997
1	A105_06698T0	Z519_08971T0	96.59	410	14	0	1	410	1	410	0	739
4	A105_06981T0	Z519_06515T0	96.59	1526	49	2	1	1524	1	1525	0	2947
9	A105_07434T0	Z519_06006T0	96.59	586	20	0	1	586	1	586	0	1169
2	A105_07910T0	Z519_07740T0	96.59	1025	35	0	1	1025	1	1025	0	2002
10	A105_08135T0	Z519_09358T0	96.59	998	34	0	1	998	1	998	0	1910
3	A105_08598T0	Z519_04051T0	96.59	469	16	0	1	469	1	469	0	941
2	A105_08770T0	Z519_03886T0	96.59	821	28	0	1	821	57	877	0	1631
2	A105_08925T0	Z519_03726T0	96.59	205	6	1	1	205	1	204	7.00E-142	397
1	A105_10075T0	Z519_04095T0	96.59	88	3	0	1	88	1	88	5.00E-46	146
1	A105_10937T0	Z519_11476T0	96.59	645	18	1	1	645	1	641	0	1216
1	A105_11439T0	Z519_08718T0	96.59	88	3	0	1	88	85	172	3.00E-56	173
9	A105_11526T0	Z519_11573T0	96.59	176	6	0	1	176	1	176	2.00E-126	355
59	A105_11835T0	Z519_01941T0	96.59	558	19	0	1	558	1	558	0	1124
2	A105_12424T0	Z519_06251T0	96.59	704	23	1	1	704	1	703	0	1397
1	A105_00838T0	Z519_00784T0	96.6	206	7	0	1	206	1	206	3.00E-146	409
1	A105_01306T0	Z519_08570T0	96.6	588	20	0	1	588	1	588	0	1006
5	A105_01533T0	Z519_01887T0	96.6	1146	32	1	1	1139	1	1146	0	2282
1	A105_01953T0	Z519_01506T0	96.6	353	12	0	83	435	17	369	0	705
3	A105_02356T0	Z519_11615T0	96.6	294	10	0	1	294	1	294	0	582
1	A105_02443T0	Z519_06975T0	96.6	677	23	0	1	677	1	677	0	1226
58	A105_03360T0	Z519_10183T0	96.6	764	26	0	1	764	1	764	0	1544
4	A105_04082T0	Z519_03357T0	96.6	559	19	0	1	559	1	559	0	1131
1	A105_05330T0	Z519_08204T0	96.6	617	21	0	1	617	1	617	0	1231
36	A105_06082T0	Z519_04662T0	96.6	648	22	0	1	648	1	648	0	1275

33	A105_06366T0	Z519_10674T0	96.6	1586	51	1	1	1586	1	1583	0	3148
1	A105_07974T0	Z519_07812T0	96.6	147	4	1	1	147	62	207	2.00E-95	277
2	A105_08750T0	Z519_03907T0	96.6	470	16	0	1	470	1	470	0	915
2	A105_09045T0	Z519_05157T0	96.6	265	9	0	1	265	1	265	2.00E-178	495
3	A105_09289T0	Z519_01276T0	96.6	470	16	0	1	470	1	470	0	949
1	A105_10253T0	Z519_10918T0	96.6	147	5	0	1	147	1	147	8.00E-104	296
1	A105_10503T0	Z519_11381T0	96.6	235	8	0	1	235	1	235	8.00E-169	468
3	A105_02560T0	Z519_07090T0	96.61	295	10	0	1	295	1	295	0	602
2	A105_02922T0	Z519_12754T0	96.61	590	20	0	1	590	1	590	0	1147
5	A105_04148T0	Z519_03428T0	96.61	383	13	0	1	383	1	383	0	772
21	A105_04242T0	Z519_03520T0	96.61	649	21	1	13	661	13	660	0	1302
1	A105_04752T0	Z519_02580T0	96.61	472	16	0	1	472	1	472	0	929
2	A105_06515T0	Z519_09148T0	96.61	796	27	0	1	796	1	796	0	1556
1	A105_06654T0	Z519_09014T0	96.61	177	6	0	1	177	1	177	9.00E-128	359
1	A105_06656T0	Z519_09012T0	96.61	707	24	0	19	725	1	707	0	1318
54	A105_10352T0	Z519_11023T0	96.61	413	14	0	1	413	1	413	0	827
59	A105_10577T0	Z519_12568T0	96.61	501	17	0	1	501	1	501	0	988
154	A105_11160T0	Z519_08916T0	96.61	619	21	0	1	619	1	619	0	1244
14	A105_11173T0	Z519_08905T0	96.61	561	19	0	1	561	1	561	0	1100
6	A105_12619T0	Z519_05422T0	96.61	472	16	0	1	472	1	472	0	947
1	A105_12936T0	Z519_11075T0	96.61	766	25	1	1	766	1	765	0	1400
40	A105_00546T0	Z519_00556T0	96.62	591	20	0	1	591	1	591	0	1178
1	A105_00683T0	Z519_00678T0	96.62	355	12	0	1	355	1	355	0	677
1	A105_01083T0	Z519_01002T0	96.62	385	13	0	1	385	1	385	0	704
3	A105_01428T0	Z519_11840T0	96.62	798	27	0	1	798	1	798	0	1474
2	A105_01627T0	Z519_01790T0	96.62	591	20	0	1	591	1	591	0	1145
10	A105_02181T0	Z519_01297T0	96.62	592	19	1	1	592	1	591	0	1135
35	A105_03350T0	Z519_10174T0	96.62	1568	51	1	1	1568	1	1566	0	3084
142	A105_03578T0	Z519_09700T0	96.62	503	17	0	1	503	1	503	0	974
1	A105_03782T0	Z519_03104T0	96.62	621	21	0	1	621	1	621	0	1186
12	A105_04052T0	Z519_03328T0	96.62	296	10	0	1	296	5	300	0	581
64	A105_04713T0	Z519_02543T0	96.62	622	20	1	1	621	1	622	0	1237
91	A105_05153T0	Z519_08044T0	96.62	621	20	1	1	620	1	621	0	1187
140	A105_07305T0	Z519_05880T0	96.62	503	17	0	1	503	1	503	0	1008
141	A105_07791T0	Z519_07606T0	96.62	532	18	0	12	543	1	532	0	1015

7	A105_08773T0	Z519_03883T0	96.62	296	10	0	1	296	1	296	0	590
157	A105_08990T0	Z519_05094T0	96.62	533	18	0	1	533	1	533	0	1045
8	A105_09273T0	Z519_05380T0	96.62	444	15	0	1	444	1	444	0	852
2	A105_09946T0	Z519_04201T0	96.62	266	9	0	1	266	1	266	0	539
2	A105_10370T0	Z519_11044T0	96.62	266	9	0	1	266	1	266	0	531
1	A105_10453T0	Z519_11330T0	96.62	148	5	0	1	148	1	148	2.00E-101	290
14	A105_11633T0	Z519_08664T0	96.62	355	12	0	1	355	52	406	0	704
6	A105_02023T0	Z519_01434T0	96.63	475	16	0	1	475	1	475	0	952
2	A105_03465T0	Z519_09590T0	96.63	1276	43	0	1	1276	1	1276	0	2364
2	A105_03576T0	Z519_09698T0	96.63	386	13	0	1	386	1	386	0	793
1	A105_05340T0	Z519_08213T0	96.63	683	22	1	1	683	1	682	0	1296
89	A105_05500T0	Z519_03616T0	96.63	475	16	0	1	475	1	475	0	912
2	A105_06381T0	Z519_10659T0	96.63	832	28	0	1	832	1	832	0	1626
36	A105_06469T0	Z519_09193T0	96.63	593	20	0	1	593	1	593	0	1180
1	A105_07924T0	Z519_07762T0	96.63	267	9	0	1	267	1	267	0	531
5	A105_08295T0	Z519_09513T0	96.63	326	10	1	23	348	1	325	0	634
1	A105_09319T0	Z519_01247T0	96.63	1009	33	1	1	1008	1	1009	0	1969
9	A105_09959T0	Z519_04188T0	96.63	890	30	0	1	890	1	890	0	1797
118	A105_09999T0	Z519_04169T0	96.63	297	10	0	1	297	1	297	0	580
82	A105_10263T0	Z519_10929T0	96.63	593	20	0	1	593	1	593	0	1184
23	A105_12864T0	Z519_07467T0	96.63	297	10	0	24	320	281	577	0	592
6	A105_13229T0	Z519_12515T0	96.63	1008	34	0	1	1008	1	1008	0	2005
4	A105_13347T0	Z519_09322T0	96.63	563	19	0	1	563	1	563	0	1127
3	A105_13441T0	Z519_12179T0	96.63	1126	38	0	1	1126	1	1126	0	2202
150	A105_01471T0	Z519_11796T0	96.64	536	18	0	1	536	1	536	0	1030
61	A105_02814T0	Z519_07344T0	96.64	1160	39	0	1	1160	1	1160	0	2222
1	A105_03792T0	Z519_03114T0	96.64	149	5	0	1	149	1	149	3.00E-102	293
1	A105_04875T0	Z519_02699T0	96.64	685	23	0	1	685	1	685	0	1315
1	A105_04890T0	Z519_02714T0	96.64	535	18	0	1	535	1	535	0	1066
20	A105_07472T0	Z519_06040T0	96.64	535	18	0	1	535	1	535	0	1012
9	A105_07520T0	Z519_06085T0	96.64	655	22	0	1	655	1	655	0	1307
4	A105_08335T0	Z519_09549T0	96.64	536	18	0	1	536	1	536	0	1034
1	A105_08589T0	Z519_04056T0	96.64	595	20	0	1	595	1	595	0	1148
1	A105_08837T0	Z519_03816T0	96.64	387	13	0	1	387	1	387	0	714
1	A105_09469T0	Z519_01117T0	96.64	446	14	1	1	446	1	445	0	867

1	A105_10201T0	Z519_10867T0	96.64	476	16	0	1	476	1	476	0	825
2	A105_10659T0	Z519_09846T0	96.64	952	32	0	1	952	1	952	0	1864
1	A105_10835T0	Z519_12233T0	96.64	417	14	0	4	420	1	417	0	752
123	A105_11677T0	Z519_08619T0	96.64	446	15	0	1	446	1	446	0	868
1	A105_11960T0	Z519_05773T0	96.64	476	16	0	1	476	1	476	0	770
1	A105_00036T0	Z519_00036T0	96.65	448	15	0	1	448	1	448	0	805
4	A105_00090T0	Z519_00089T0	96.65	538	18	0	1	538	1	538	0	1058
24	A105_01903T0	Z519_01562T0	96.65	686	15	1	1	686	1	678	0	1359
12	A105_02170T0	Z519_01309T0	96.65	538	18	0	1	538	1	538	0	1073
11	A105_02312T0	Z519_11663T0	96.65	538	14	1	1	534	1	538	0	1089
4	A105_03200T0	Z519_10051T0	96.65	716	24	0	1	716	1	716	0	1401
2	A105_03743T0	Z519_03065T0	96.65	239	8	0	1	239	1	239	7.00E-172	476
1	A105_03853T0	Z519_03171T0	96.65	209	7	0	1	209	1	209	6.00E-111	322
1	A105_04707T0	Z519_02537T0	96.65	328	11	0	1	328	1	328	0	600
3	A105_05669T0	Z519_11180T0	96.65	567	18	1	1	567	5	570	0	1051
192	A105_06126T0	Z519_04611T0	96.65	269	9	0	3	271	4	272	0	535
1	A105_06697T0	Z519_08972T0	96.65	538	18	0	1	538	1	538	0	1035
1	A105_08423T0	Z519_05627T0	96.65	746	22	1	1	746	1	743	0	1442
3	A105_09856T0	Z519_10361T0	96.65	836	28	0	1	836	1	836	0	1511
6	A105_09937T0	Z519_04210T0	96.65	478	16	0	8	485	1	478	0	932
15	A105_10694T0	Z519_09880T0	96.65	507	17	0	1	507	1	507	0	947
1	A105_10878T0	Z519_11417T0	96.65	478	16	0	1	478	1	478	0	782
1	A105_11190T0	Z519_08892T0	96.65	358	12	0	1	358	1	358	0	709
8	A105_12826T0	Z519_12546T0	96.65	1135	36	2	1	1133	1	1135	0	2226
1	A105_00843T0	Z519_00789T0	96.66	629	21	0	1	629	1	629	0	1107
2	A105_01524T0	Z519_01895T0	96.66	359	12	0	1	359	1	359	0	687
12	A105_01801T0	Z519_01663T0	96.66	419	14	0	1	419	1	419	0	821
1	A105_05937T0	Z519_04797T0	96.66	659	21	1	1	659	1	658	0	1275
20	A105_06424T0	Z519_10617T0	96.66	329	11	0	1	329	1	329	0	664
3	A105_07607T0	Z519_06170T0	96.66	299	7	2	1	299	1	296	0	535
1	A105_07737T0	Z519_07551T0	96.66	1256	42	0	1	1256	1	1256	0	2498
8	A105_09008T0	Z519_05113T0	96.66	897	30	0	1	897	1	897	0	1740
15	A105_10704T0	Z519_09890T0	96.66	419	14	0	1	419	1	419	0	842
3	A105_11838T0	Z519_01944T0	96.66	539	18	0	70	608	5	543	0	1100
1	A105_11896T0	Z519_01999T0	96.66	359	12	0	31	389	1	359	0	723

7	A105_00500T0	Z519_00506T0	96.67	451	15	0	4	454	2	452	0	870
1	A105_01655T0	Z519_01761T0	96.67	870	29	0	1	870	5	874	0	1633
1	A105_01832T0	Z519_01631T0	96.67	691	23	0	1	691	1	691	0	1366
1	A105_02320T0	Z519_11655T0	96.67	840	28	0	13	852	13	852	0	1620
9	A105_02554T0	Z519_07085T0	96.67	600	20	0	1	600	1	600	0	1212
9	A105_03244T0	Z519_10093T0	96.67	571	19	0	1	571	1	571	0	1143
1	A105_05818T0	Z519_04914T0	96.67	240	8	0	1	240	1	240	1.00E-173	481
1	A105_07068T0	Z519_06432T0	96.67	90	3	0	1	90	1	90	1.00E-59	179
1	A105_07460T0	Z519_06027T0	96.67	180	6	0	1	180	125	304	6.00E-100	293
14	A105_08186T0	Z519_09409T0	96.67	631	21	0	1	631	1	631	0	1246
4	A105_10272T0	Z519_10939T0	96.67	360	12	0	1	360	1	360	0	722
18	A105_02001T0	Z519_01459T0	96.68	482	16	0	1	482	1	482	0	968
41	A105_02960T0	Z519_12068T0	96.68	602	20	0	1	602	1	602	0	1116
90	A105_02984T0	Z519_12045T0	96.68	512	15	1	1	510	1	512	0	1012
5	A105_03775T0	Z519_03097T0	96.68	1054	35	0	2	1055	20	1073	0	2078
1	A105_03903T0	Z519_03217T0	96.68	632	21	0	1	632	32	663	0	1186
2	A105_04189T0	Z519_03468T0	96.68	482	16	0	1	482	1	482	0	949
1	A105_04785T0	Z519_02612T0	96.68	361	12	0	1	361	1	361	0	725
2	A105_04917T0	Z519_02743T0	96.68	391	12	1	1	390	1	391	0	701
44	A105_05827T0	Z519_04905T0	96.68	331	11	0	1	331	1	331	0	662
23	A105_06555T0	Z519_09110T0	96.68	482	16	0	1	482	1	482	0	970
1	A105_07670T0	Z519_06234T0	96.68	271	9	0	1	271	1	271	0	542
1	A105_08741T0	Z519_03917T0	96.68	271	9	0	1	271	1	271	0	524
1	A105_09815T0	Z519_10405T0	96.68	782	26	0	1	782	1	782	0	1586
21	A105_11141T0	Z519_08934T0	96.68	1415	47	0	1	1415	1	1415	0	2833
1	A105_11638T0	Z519_08660T0	96.68	211	7	0	1	211	1	211	9.00E-147	410
2	A105_00228T0	Z519_00226T0	96.69	272	9	0	1	272	1	272	0	549
1	A105_00939T0	Z519_00874T0	96.69	725	24	0	1	725	1	725	0	1431
3	A105_01249T0	Z519_08515T0	96.69	1179	36	2	1	1176	1	1179	0	2259
1	A105_01994T0	Z519_01466T0	96.69	483	16	0	1	483	1	483	0	827
16	A105_02962T0	Z519_12066T0	96.69	543	18	0	1	543	1	543	0	1065
52	A105_03161T0	Z519_10011T0	96.69	724	24	0	1	724	1	724	0	1417
61	A105_03303T0	Z519_10151T0	96.69	513	17	0	1	513	1	513	0	1025
26	A105_04259T0	Z519_03537T0	96.69	635	20	1	1	635	1	634	0	1197
1	A105_06371T0	Z519_10669T0	96.69	181	6	0	13	193	21	201	5.00E-129	364

3	A105_06801T0	Z519_06702T0	96.69	815	27	0	1	815	1	815	0	1627
2	A105_07372T0	Z519_05944T0	96.69	242	8	0	1	242	1	242	1.00E-179	496
12	A105_08196T0	Z519_09420T0	96.69	272	9	0	1	272	1	272	0	549
1	A105_11569T0	Z519_11527T0	96.69	151	5	0	1	151	1	151	2.00E-81	239
1	A105_12092T0	Z519_12353T0	96.69	966	32	0	1	966	1	966	0	1791
1	A105_00456T0	Z519_00463T0	96.7	515	17	0	1	515	1	515	0	1005
1	A105_02905T0	Z519_12772T0	96.7	424	14	0	1	424	1	424	0	696
1	A105_03840T0	Z519_03158T0	96.7	546	15	1	1	543	1	546	0	982
1	A105_07248T0	Z519_05826T0	96.7	303	10	0	1	303	1	303	0	583
311	A105_07452T0	Z519_06019T0	96.7	908	30	0	1	908	1	908	0	1829
1	A105_08975T0	Z519_05078T0	96.7	303	9	1	1	303	40	341	4.00E-166	468
1	A105_09764T0	Z519_10458T0	96.7	819	27	0	1	819	1	819	0	1645
2	A105_00226T0	Z519_00224T0	96.71	395	13	0	1	395	1	395	0	800
4	A105_00728T0	Z519_00720T0	96.71	547	16	2	1	545	1	547	0	871
2	A105_01616T0	Z519_01801T0	96.71	243	8	0	1	243	1	243	3.00E-173	480
1	A105_01910T0	Z519_01552T0	96.71	152	5	0	1	152	1	152	2.00E-106	303
1	A105_02865T0	Z519_07396T0	96.71	913	28	1	1	913	1	911	0	1741
12	A105_04873T0	Z519_02697T0	96.71	487	16	0	1	487	1	487	0	910
157	A105_06077T0	Z519_04666T0	96.71	517	17	0	1	517	1	517	0	1023
2	A105_06173T0	Z519_04567T0	96.71	395	13	0	1	395	1	395	0	792
1	A105_06448T0	Z519_09212T0	96.71	608	19	1	1	608	1	607	0	1122
96	A105_07307T0	Z519_05882T0	96.71	607	20	0	1	607	1	607	0	1231
2	A105_07368T0	Z519_05940T0	96.71	638	21	0	1	638	1	638	0	1246
14	A105_07754T0	Z519_07568T0	96.71	456	15	0	1	456	107	562	0	919
7	A105_08529T0	Z519_05523T0	96.71	608	20	0	1	608	1	608	0	1218
5	A105_09004T0	Z519_05109T0	96.71	577	19	0	1	577	1	577	0	1170
4	A105_12118T0	Z519_12378T0	96.71	395	13	0	1	395	1	395	0	794
1	A105_12687T0	Z519_09821T0	96.71	669	20	1	1	667	1	669	0	1211
3	A105_13252T0	Z519_12164T0	96.71	638	18	1	1	638	9	643	0	1254
3	A105_00086T0	Z519_00085T0	96.72	61	2	0	1	61	1	61	2.00E-34	114
1	A105_01270T0	Z519_08536T0	96.72	366	12	0	1	366	41	406	0	733
66	A105_02245T0	Z519_11734T0	96.72	580	19	0	1	580	21	600	0	1170
3	A105_04283T0	Z519_03561T0	96.72	822	27	0	1	822	1	822	0	1510
1	A105_04950T0	Z519_02774T0	96.72	335	11	0	1	335	1	335	0	669
4	A105_06073T0	Z519_04670T0	96.72	305	10	0	1	305	1	305	0	610

100	A105_07470T0	Z519_06037T0	96.72	274	9	0	1	274	6	279	1.00E-173	484
5	A105_07875T0	Z519_07705T0	96.72	488	16	0	1	488	1	488	0	979
85	A105_08712T0	Z519_03947T0	96.72	548	10	1	1	540	1	548	0	1088
2	A105_08833T0	Z519_03820T0	96.72	274	9	0	1	274	1	274	0	518
130	A105_12539T0	Z519_02870T0	96.72	274	9	0	1	274	1	274	0	529
10	A105_13130T0	Z519_11256T0	96.72	671	22	0	1	671	1	671	0	1334
1	A105_00291T0	Z519_00301T0	96.73	611	20	0	1	611	1	611	0	1197
1	A105_00555T0	Z519_00566T0	96.73	245	8	0	1	245	1	245	3.00E-147	414
38	A105_01809T0	Z519_01655T0	96.73	672	22	0	1	672	1	672	0	1282
36	A105_04207T0	Z519_03486T0	96.73	1010	33	0	1	1010	1	1010	0	1927
60	A105_04636T0	Z519_02464T0	96.73	275	8	1	1	274	1	275	0	538
1	A105_05279T0	Z519_08152T0	96.73	978	29	1	2	979	95	1069	0	1860
53	A105_06259T0	Z519_10754T0	96.73	581	19	0	1	581	1	581	0	1098
2	A105_06809T0	Z519_06690T0	96.73	214	7	0	3	216	1	214	4.00E-150	419
8	A105_06815T0	Z519_06685T0	96.73	397	13	0	1	397	1	397	0	789
3	A105_07129T0	Z519_06372T0	96.73	1684	55	0	1	1684	1	1684	0	3284
1	A105_07370T0	Z519_05942T0	96.73	398	13	0	1	398	1	398	0	734
2	A105_07571T0	Z519_06135T0	96.73	459	15	0	1	459	1	459	0	903
2	A105_07920T0	Z519_07758T0	96.73	245	8	0	1	245	1	245	1.00E-176	488
3	A105_08067T0	Z519_04332T0	96.73	643	21	0	1	643	1	643	0	1310
88	A105_08372T0	Z519_05672T0	96.73	489	16	0	1	489	1	489	0	974
1	A105_08742T0	Z519_03916T0	96.73	1069	35	0	1	1069	1	1069	0	2077
1	A105_08819T0	Z519_03835T0	96.73	367	11	1	1	366	1	367	0	600
2	A105_08888T0	Z519_03765T0	96.73	734	24	0	1	734	1	734	0	1288
1	A105_09275T0	Z519_05382T0	96.73	520	17	0	1	520	1	520	0	1045
102	A105_11063T0	Z519_06864T0	96.73	581	19	0	1	581	1	581	0	1102
1	A105_11252T0	Z519_08826T0	96.73	214	7	0	1	214	1	214	1.00E-153	428
45	A105_11926T0	Z519_02027T0	96.73	735	24	0	1	735	595	1329	0	1438
2	A105_12136T0	Z519_09249T0	96.73	612	20	0	1	612	82	693	0	1218
1	A105_12873T0	Z519_07476T0	96.73	398	11	1	1	398	1	396	0	731
17	A105_01620T0	Z519_01797T0	96.74	675	22	0	14	688	14	688	0	1333
6	A105_01992T0	Z519_01468T0	96.74	827	27	0	1	827	1	827	0	1684
15	A105_04006T0	Z519_03303T0	96.74	521	16	1	1	520	1	521	0	1026
1	A105_04506T0	Z519_02334T0	96.74	276	9	0	1	276	1	276	0	561
28	A105_04957T0	Z519_02781T0	96.74	614	20	0	1	614	1	614	0	1237

1	A105_05734T0	Z519_11114T0	96.74	368	9	1	77	441	21	388	0	648
1	A105_07186T0	Z519_06314T0	96.74	430	14	0	1	430	1	430	0	857
32	A105_08313T0	Z519_09528T0	96.74	399	13	0	1	399	1	399	0	780
1	A105_08881T0	Z519_03772T0	96.74	307	10	0	1	307	1	307	0	576
1	A105_09463T0	Z519_01123T0	96.74	736	23	1	1	735	1	736	0	1436
4	A105_10112T0	Z519_04261T0	96.74	276	9	0	1	276	1	276	0	539
2	A105_10605T0	Z519_12548T0	96.74	644	21	0	1	644	1	644	0	1259
3	A105_10643T0	Z519_09831T0	96.74	430	14	0	1	430	1	430	0	882
1	A105_10873T0	Z519_11411T0	96.74	368	12	0	1	368	1	368	0	668
1	A105_10988T0	Z519_11523T0	96.74	1042	34	0	1	1042	1	1042	0	1998
1	A105_11860T0	Z519_01964T0	96.74	276	9	0	1	276	1	276	3.00E-164	460
131	A105_12503T0	Z519_02837T0	96.74	613	20	0	1	613	1	613	0	1226
1	A105_01651T0	Z519_01765T0	96.75	986	32	0	1	986	1	986	0	1884
4	A105_01749T0	Z519_01689T0	96.75	400	13	0	1	400	1	400	0	770
4	A105_01964T0	Z519_01495T0	96.75	585	19	0	1	585	1	585	0	1159
3	A105_02553T0	Z519_07084T0	96.75	615	20	0	1	615	1	615	0	1234
6	A105_02576T0	Z519_07106T0	96.75	831	25	2	1	831	1	829	0	1378
1	A105_02813T0	Z519_07343T0	96.75	277	9	0	1	277	1	277	0	548
1	A105_02942T0	Z519_12085T0	96.75	154	5	0	1	154	1	154	2.00E-109	311
1	A105_03081T0	Z519_11957T0	96.75	800	6	1	58	837	1	800	0	1573
156	A105_03699T0	Z519_03018T0	96.75	277	2	1	1	277	1	270	0	539
23	A105_05015T0	Z519_12218T0	96.75	277	9	0	1	277	1	277	0	543
4	A105_05986T0	Z519_04750T0	96.75	2030	62	1	1	2026	1	2030	0	4029
47	A105_09172T0	Z519_05285T0	96.75	1016	25	1	1	1008	1	1016	0	1921
4	A105_09718T0	Z519_10490T0	96.75	554	18	0	1	554	1	554	0	1023
7	A105_10387T0	Z519_11263T0	96.75	677	22	0	1	677	1	677	0	1327
1	A105_11077T0	Z519_06877T0	96.75	647	21	0	1	647	1	647	0	1184
8	A105_12475T0	Z519_12643T0	96.75	615	19	1	1	614	1	615	0	1209
7	A105_13136T0	Z519_11263T0	96.75	677	22	0	1	677	1	677	0	1327
3	A105_00902T0	Z519_00851T0	96.76	803	25	1	1	803	1	802	0	1572
83	A105_01671T0	Z519_01745T0	96.76	524	17	0	7	530	1	524	0	1026
3	A105_01897T0	Z519_01569T0	96.76	339	11	0	1	339	1	339	0	678
125	A105_02563T0	Z519_07093T0	96.76	524	17	0	16	539	16	539	0	1070
1	A105_02738T0	Z519_07271T0	96.76	309	10	0	1	309	1	309	0	590
1	A105_03234T0	Z519_10084T0	96.76	710	23	0	1	710	1	710	0	1407

1	A105_03998T0	Z519_03296T0	96.76	679	22	0	1	679	1	679	0	1282
5	A105_04092T0	Z519_03365T0	96.76	309	10	0	1	309	1	309	0	625
1	A105_04228T0	Z519_03508T0	96.76	309	10	0	20	328	19	327	0	620
5	A105_05251T0	Z519_08122T0	96.76	247	8	0	1	247	1	247	3.00E-174	483
1	A105_05939T0	Z519_04795T0	96.76	678	22	0	1	678	1	678	0	1298
1	A105_07249T0	Z519_05827T0	96.76	185	6	0	1	185	1	185	1.00E-132	372
9	A105_07263T0	Z519_05842T0	96.76	556	18	0	1	556	1	556	0	1130
2	A105_08154T0	Z519_09378T0	96.76	339	10	1	1	339	1	338	0	599
2	A105_09197T0	Z519_05311T0	96.76	494	16	0	1	494	1	494	0	996
1	A105_09767T0	Z519_10455T0	96.76	309	10	0	1	309	38	346	0	612
57	A105_10243T0	Z519_10908T0	96.76	617	20	0	1	617	1	617	0	1233
2	A105_10521T0	Z519_12623T0	96.76	927	29	1	1	927	1	926	0	1689
1	A105_11342T0	Z519_02117T0	96.76	339	11	0	1	339	1	339	0	603
2	A105_11562T0	Z519_11534T0	96.76	525	17	0	1	525	1	525	0	1028
124	A105_11599T0	Z519_08695T0	96.76	524	17	0	1	524	1	524	0	1069
2	A105_11619T0	Z519_08677T0	96.76	185	6	0	1	185	1	185	3.00E-124	351
6	A105_13171T0	Z519_04353T0	96.76	185	6	0	1	185	1	185	2.00E-133	374
1	A105_00067T0	Z519_00066T0	96.77	341	11	0	1	341	1	341	0	685
11	A105_00257T0	Z519_00259T0	96.77	837	27	0	1	837	7	843	0	1670
5	A105_00311T0	Z519_00320T0	96.77	433	14	0	1	433	1	433	0	863
4	A105_01233T0	Z519_08500T0	96.77	805	26	0	1	805	79	883	0	1600
2	A105_02219T0	Z519_11756T0	96.77	713	22	1	1	713	101	812	0	1369
32	A105_02862T0	Z519_07393T0	96.77	341	11	0	1	341	1	341	0	684
1	A105_03192T0	Z519_10043T0	96.77	372	12	0	1	372	1	372	0	701
119	A105_05472T0	Z519_08348T0	96.77	558	18	0	1	558	1	558	0	1080
2	A105_05993T0	Z519_04743T0	96.77	527	17	0	1	527	1	527	0	1061
1	A105_06169T0	Z519_04571T0	96.77	402	13	0	1	402	1	402	0	743
4	A105_06553T0	Z519_09112T0	96.77	279	9	0	1	279	1	279	0	548
2	A105_06603T0	Z519_09061T0	96.77	464	15	0	1	464	1	464	0	900
1	A105_07950T0	Z519_07792T0	96.77	341	11	0	1	341	1	341	0	625
1	A105_08733T0	Z519_03926T0	96.77	248	8	0	1	248	1	248	2.00E-175	486
1	A105_08966T0	Z519_05069T0	96.77	403	13	0	1	403	1	403	0	803
5	A105_08992T0	Z519_05096T0	96.77	402	13	0	1	402	1	402	0	805
12	A105_09485T0	Z519_01098T0	96.77	248	8	0	1	248	1	248	3.00E-179	496
27	A105_10286T0	Z519_10952T0	96.77	558	18	0	5	562	1	558	0	1069

8	A105_10822T0	Z519_12246T0	96.77	742	24	0	7	748	9	750	0	1335
1	A105_11521T0	Z519_11578T0	96.77	93	3	0	1	93	1	93	8.00E-62	185
7	A105_11684T0	Z519_08611T0	96.77	496	16	0	1	496	210	705	0	997
3	A105_11929T0	Z519_02028T0	96.77	557	18	0	1	557	1	557	0	1110
109	A105_12230T0	Z519_04524T0	96.77	651	20	1	1	651	1	650	0	1297
6	A105_12543T0	Z519_05505T0	96.77	588	19	0	32	619	1	588	0	1189
2	A105_12890T0	Z519_07493T0	96.77	155	5	0	1	155	1	155	7.00E-112	317
20	A105_00079T0	Z519_00078T0	96.78	311	10	0	1	311	1	311	0	621
1	A105_03079T0	Z519_11959T0	96.78	435	14	0	1	435	1	435	0	875
22	A105_05304T0	Z519_08177T0	96.78	342	11	0	1	342	1	342	0	697
12	A105_05725T0	Z519_11126T0	96.78	466	15	0	1	466	1	466	0	914
3	A105_05731T0	Z519_11117T0	96.78	373	11	1	1	372	1	373	0	697
10	A105_06691T0	Z519_08978T0	96.78	373	12	0	1	373	1	373	0	727
1	A105_07579T0	Z519_06142T0	96.78	528	15	1	1	528	1	526	0	962
30	A105_10703T0	Z519_09889T0	96.78	311	10	0	1	311	1	311	0	623
83	A105_12769T0	Z519_10828T0	96.78	311	10	0	1	311	1	311	0	624
17	A105_00672T0	Z519_00667T0	96.79	405	13	0	23	427	74	478	0	761
68	A105_01025T0	Z519_00948T0	96.79	592	17	1	1	592	1	590	0	1160
1	A105_03427T0	Z519_10249T0	96.79	996	31	1	1	996	1	995	0	1921
1	A105_03559T0	Z519_09682T0	96.79	561	18	0	1	561	1	561	0	1120
131	A105_05743T0	Z519_04998T0	96.79	249	8	0	14	262	1	249	3.00E-178	494
3	A105_06723T0	Z519_06786T0	96.79	842	27	0	1	842	1	842	0	1662
1	A105_07108T0	Z519_06392T0	96.79	312	10	0	1	312	65	376	0	598
14	A105_07582T0	Z519_06145T0	96.79	249	8	0	1	249	1	249	1.00E-179	498
80	A105_07890T0	Z519_07721T0	96.79	218	6	1	1	217	1	218	1.00E-155	437
2	A105_08114T0	Z519_09338T0	96.79	374	12	0	1	374	1	374	0	725
1	A105_08594T0	Z519_04053T0	96.79	778	25	0	1	778	1	778	0	1494
2	A105_08699T0	Z519_03959T0	96.79	343	11	0	1	343	1	343	0	653
4	A105_09068T0	Z519_05179T0	96.79	468	15	0	1	468	1	468	0	957
1	A105_10932T0	Z519_11471T0	96.79	530	17	0	1	530	1	530	0	1028
27	A105_11061T0	Z519_06862T0	96.79	499	16	0	1	499	1	499	0	971
134	A105_11527T0	Z519_11572T0	96.79	530	17	0	1	530	1	530	0	1066
40	A105_12077T0	Z519_12339T0	96.79	499	16	0	1	499	1	499	0	988
35	A105_12194T0	Z519_04555T0	96.79	624	20	0	44	667	24	647	0	1229
4	A105_12492T0	Z519_02825T0	96.79	529	17	0	1	529	1	529	0	974

1	A105_00621T0	Z519_00630T0	96.8	281	9	0	1	281	1	281	2.00E-180	501
27	A105_01046T0	Z519_00969T0	96.8	344	11	0	1	344	1	344	0	653
5	A105_01166T0	Z519_08434T0	96.8	281	9	0	1	281	1	281	0	567
6	A105_03563T0	Z519_09686T0	96.8	1596	46	1	1	1596	1	1591	0	3196
3	A105_04428T0	Z519_02260T0	96.8	656	21	0	1	656	1	656	0	1270
2	A105_04797T0	Z519_02625T0	96.8	125	4	0	1	125	1	125	2.00E-86	250
37	A105_05128T0	Z519_08017T0	96.8	688	22	0	1	688	1	688	0	1377
1	A105_06312T0	Z519_10712T0	96.8	593	19	0	1	593	1	593	0	1150
3	A105_08382T0	Z519_05662T0	96.8	375	12	0	1	375	1	375	0	731
2	A105_09223T0	Z519_05337T0	96.8	874	28	0	1	874	1	874	0	1648
1	A105_09691T0	Z519_10516T0	96.8	562	16	1	1	562	1	560	0	993
1	A105_09845T0	Z519_10372T0	96.8	281	9	0	1	281	1	281	2.00E-177	494
2	A105_10090T0	Z519_04252T0	96.8	438	13	1	1	438	1	437	0	859
1	A105_11925T0	Z519_02027T0	96.8	593	19	0	1	593	1	593	0	1089
1	A105_12013T0	Z519_05716T0	96.8	344	11	0	1	344	1	344	0	693
51	A105_02217T0	Z519_11758T0	96.81	282	9	0	1	282	1	282	0	563
1	A105_04009T0	Z519_03306T0	96.81	1222	39	0	1	1222	1	1222	0	2349
1	A105_04410T0	Z519_02241T0	96.81	313	9	1	1	312	1	313	0	590
1	A105_05068T0	Z519_07958T0	96.81	408	13	0	1	408	1	408	0	598
52	A105_05984T0	Z519_04752T0	96.81	407	13	0	1	407	1	407	0	774
6	A105_06142T0	Z519_04595T0	96.81	188	6	0	1	188	1	188	1.00E-135	380
6	A105_06634T0	Z519_09031T0	96.81	408	13	0	1	408	1	408	0	831
4	A105_06955T0	Z519_06542T0	96.81	282	4	1	1	282	1	277	5.00E-179	498
4	A105_07683T0	Z519_07506T0	96.81	345	11	0	1	345	1	345	0	691
4	A105_09782T0	Z519_10438T0	96.81	1441	46	0	1	1441	1	1441	0	2823
1	A105_10087T0	Z519_04249T0	96.81	1631	50	1	1	1631	1	1629	0	3212
47	A105_10779T0	Z519_12286T0	96.81	595	13	1	1	589	1	595	0	1188
169	A105_10911T0	Z519_11452T0	96.81	282	9	0	1	282	1	282	0	550
1	A105_00168T0	Z519_00168T0	96.82	597	19	0	1	597	1	597	0	1165
20	A105_00477T0	Z519_00484T0	96.82	628	20	0	1	628	1	628	0	1196
19	A105_01029T0	Z519_00952T0	96.82	283	9	0	1	283	1	283	0	563
65	A105_02767T0	Z519_07299T0	96.82	534	17	0	1	534	25	558	0	1075
6	A105_03230T0	Z519_10080T0	96.82	628	20	0	1	628	1	628	0	1268
165	A105_04231T0	Z519_03511T0	96.82	314	10	0	1	314	1	314	0	625
66	A105_04363T0	Z519_02190T0	96.82	377	12	0	1	377	1	377	0	725

20	A105_06165T0	Z519_04575T0	96.82	534	17	0	1	534	67	600	0	1041
2	A105_07644T0	Z519_06208T0	96.82	440	14	0	1	440	1	440	0	759
2	A105_10610T0	Z519_11107T0	96.82	377	9	1	1	374	1	377	0	715
86	A105_12414T0	Z519_06263T0	96.82	472	15	0	1	472	1	472	0	938
1	A105_12448T0	Z519_12663T0	96.82	346	10	1	1	346	40	384	0	618
69	A105_13011T0	Z519_04426T0	96.82	471	9	1	1	471	1	465	0	936
1	A105_01464T0	Z519_11803T0	96.83	63	2	0	1	63	1	63	3.00E-37	120
2	A105_01997T0	Z519_01463T0	96.83	347	11	0	1	347	1	347	0	693
47	A105_02130T0	Z519_01348T0	96.83	441	14	0	1	441	1	441	0	890
2	A105_02351T0	Z519_11620T0	96.83	284	9	0	1	284	1	284	0	523
1	A105_03527T0	Z519_09650T0	96.83	977	29	1	1	977	1	975	0	1907
1	A105_04608T0	Z519_02436T0	96.83	536	17	0	1	536	1	536	0	1019
3	A105_04888T0	Z519_02712T0	96.83	252	8	0	1	252	1	252	0	511
7	A105_05410T0	Z519_08285T0	96.83	662	21	0	1	662	11	672	0	1281
1	A105_05718T0	Z519_11132T0	96.83	631	20	0	1	631	1	631	0	1206
12	A105_07097T0	Z519_06403T0	96.83	252	8	0	1	252	1	252	1.00E-179	513
86	A105_07282T0	Z519_05861T0	96.83	504	16	0	1	504	1	504	0	991
1	A105_07414T0	Z519_05986T0	96.83	252	8	0	1	252	1	252	7.00E-177	490
3	A105_08377T0	Z519_05667T0	96.83	505	16	0	1	505	1	505	0	1018
2	A105_09102T0	Z519_05212T0	96.83	315	5	1	1	310	1	315	0	585
6	A105_10647T0	Z519_09835T0	96.83	819	26	0	1	819	85	903	0	1629
42	A105_11466T0	Z519_08749T0	96.83	631	20	0	1	631	1	631	0	1236
146	A105_11794T0	Z519_02887T0	96.83	537	17	0	1	537	1	537	0	1060
5	A105_12056T0	Z519_12314T0	96.83	315	10	0	1	315	1	315	0	592
14	A105_12758T0	Z519_10816T0	96.83	726	19	2	1	725	1	723	0	1328
1	A105_00708T0	Z519_00702T0	96.84	790	25	0	1	790	1	790	0	1583
3	A105_01894T0	Z519_01572T0	96.84	1519	46	1	1	1519	1	1517	0	2961
78	A105_03049T0	Z519_11988T0	96.84	380	12	0	1	380	1	380	0	761
3	A105_03876T0	Z519_03194T0	96.84	380	12	0	1	380	1	380	0	773
4	A105_04589T0	Z519_02417T0	96.84	158	5	0	1	158	1	158	1.00E-105	313
1	A105_04886T0	Z519_02710T0	96.84	475	15	0	1	475	1	475	0	868
1	A105_05280T0	Z519_08153T0	96.84	411	11	1	1	409	1	411	0	707
1	A105_07025T0	Z519_06476T0	96.84	190	6	0	1	190	1	190	3.00E-91	276
1	A105_07684T0	Z519_07507T0	96.84	253	8	0	1	253	1	253	6.00E-165	460
89	A105_08906T0	Z519_03746T0	96.84	507	16	0	2	508	6	512	0	990

9	A105_10278T0	Z519_10945T0	96.84	348	11	0	1	348	1	348	0	700
4	A105_11785T0	Z519_02896T0	96.84	1109	34	1	1	1109	1	1108	0	1739
3	A105_11848T0	Z519_01954T0	96.84	380	12	0	1	380	1	380	0	761
3	A105_11873T0	Z519_01977T0	96.84	412	13	0	1	412	13	424	0	725
13	A105_12148T0	Z519_09261T0	96.84	1044	33	0	1	1044	1	1044	0	2010
1	A105_12728T0	Z519_09786T0	96.84	443	14	0	1	443	1	443	0	835
3	A105_12774T0	Z519_10833T0	96.84	791	25	0	1	791	1	791	0	1418
2	A105_00407T0	Z519_00408T0	96.85	127	4	0	1	127	1	127	8.00E-91	261
104	A105_03242T0	Z519_10091T0	96.85	571	18	0	1	571	53	623	0	1159
1	A105_03385T0	Z519_10206T0	96.85	222	7	0	53	274	1	222	8.00E-149	419
1	A105_04239T0	Z519_03517T0	96.85	254	8	0	1	254	1	254	3.00E-159	446
1	A105_04278T0	Z519_03556T0	96.85	476	15	0	1	476	1	476	0	952
8	A105_04514T0	Z519_02341T0	96.85	381	12	0	1	381	1	381	0	772
10	A105_04794T0	Z519_02621T0	96.85	540	17	0	1	540	1	540	0	1078
1	A105_04864T0	Z519_02688T0	96.85	317	10	0	1	317	1	317	0	591
1	A105_05890T0	Z519_04844T0	96.85	572	17	1	1	572	4	574	0	1102
155	A105_05991T0	Z519_04745T0	96.85	508	14	2	1	507	21	527	0	999
3	A105_06139T0	Z519_04598T0	96.85	508	12	1	1	508	1	504	0	997
1	A105_07879T0	Z519_07709T0	96.85	667	21	0	1	667	1	667	0	1198
2	A105_08054T0	Z519_07889T0	96.85	858	27	0	1	858	1	858	0	1623
2	A105_08621T0	Z519_04029T0	96.85	222	7	0	1	222	566	787	1.00E-149	438
1	A105_09635T0	Z519_10569T0	96.85	381	12	0	8	388	89	469	0	749
1	A105_10069T0	Z519_04102T0	96.85	1333	42	0	1	1333	1	1333	0	2624
9	A105_10489T0	Z519_11365T0	96.85	604	19	0	15	618	71	674	0	1224
1	A105_11522T0	Z519_11577T0	96.85	763	24	0	1	763	3	765	0	1529
1	A105_00284T0	Z519_00293T0	96.86	1177	37	0	1	1177	1	1177	0	2300
2	A105_00368T0	Z519_00367T0	96.86	287	9	0	1	287	1	287	0	577
54	A105_00618T0	Z519_00628T0	96.86	510	16	0	1	510	1	510	0	1006
3	A105_00934T0	Z519_00869T0	96.86	446	10	1	1	442	1	446	0	785
151	A105_01161T0	Z519_08429T0	96.86	509	16	0	3	511	1	509	0	983
1	A105_01500T0	Z519_01914T0	96.86	255	8	0	1	255	1	255	0	508
17	A105_02183T0	Z519_01295T0	96.86	382	12	0	1	382	90	471	0	736
8	A105_02615T0	Z519_07143T0	96.86	892	28	0	1	892	1	892	0	1756
1	A105_03389T0	Z519_10210T0	96.86	510	16	0	1	510	1	510	0	923
154	A105_03716T0	Z519_03035T0	96.86	255	8	0	1	255	1	255	0	502

5	A105_03987T0	Z519_03285T0	96.86	318	10	0	1	318	1	318	0	641
1	A105_04668T0	Z519_02498T0	96.86	477	15	0	1	477	1	477	0	915
1	A105_05029T0	Z519_07919T0	96.86	574	18	0	1	574	1	574	0	1149
5	A105_05901T0	Z519_04833T0	96.86	1275	38	2	1	1274	1	1274	0	2422
59	A105_06820T0	Z519_06680T0	96.86	191	6	0	1	191	1	191	3.00E-135	379
2	A105_07662T0	Z519_06227T0	96.86	1082	34	0	1	1082	1	1082	0	2148
3	A105_08477T0	Z519_05575T0	96.86	446	14	0	1	446	1	446	0	900
7	A105_08566T0	Z519_04078T0	96.86	605	19	0	1	605	1	605	0	1220
1	A105_08921T0	Z519_03731T0	96.86	318	10	0	1	318	1	318	0	637
1	A105_09447T0	Z519_01139T0	96.86	573	18	0	1	573	1	573	0	1155
10	A105_09850T0	Z519_10367T0	96.86	382	12	0	1	382	1	382	0	755
5	A105_11036T0	Z519_06836T0	96.86	382	12	0	1	382	1	382	0	677
1	A105_11902T0	Z519_02005T0	96.86	350	11	0	1	350	1	350	0	683
1	A105_12250T0	Z519_04503T0	96.86	795	24	1	1	795	1	794	0	1382
3	A105_12552T0	Z519_05500T0	96.86	542	17	0	1	542	1	542	0	998
19	A105_13321T0	Z519_05012T0	96.86	509	16	0	1	509	1	509	0	1016
1	A105_00567T0	Z519_00578T0	96.87	543	17	0	1	543	1	543	0	952
1	A105_02180T0	Z519_01298T0	96.87	766	24	0	1	766	1	766	0	1502
26	A105_02500T0	Z519_07034T0	96.87	511	16	0	1	511	12	522	0	1016
1	A105_02649T0	Z519_07181T0	96.87	638	20	0	1	638	1	638	0	1215
1	A105_03191T0	Z519_10042T0	96.87	798	25	0	1	798	1	798	0	1511
11	A105_03456T0	Z519_10279T0	96.87	383	12	0	1	383	1	383	0	720
1	A105_04076T0	Z519_03352T0	96.87	703	22	0	4	706	1	703	0	1387
32	A105_04977T0	Z519_02801T0	96.87	607	19	0	1	607	1	607	0	1237
11	A105_07089T0	Z519_06410T0	96.87	702	22	0	1	702	1	702	0	1420
8	A105_08328T0	Z519_09542T0	96.87	862	27	0	1	862	1	862	0	1744
1	A105_10482T0	Z519_11358T0	96.87	575	18	0	1	575	1	575	0	1035
1	A105_00828T0	Z519_00774T0	96.88	673	21	0	1	673	1	673	0	1319
1	A105_01290T0	Z519_08555T0	96.88	288	9	0	1	288	1	288	0	572
7	A105_03083T0	Z519_11955T0	96.88	352	11	0	1	352	1	352	0	700
1	A105_03868T0	Z519_03186T0	96.88	64	2	0	1	64	8	71	6.00E-25	89.4
1	A105_03939T0	Z519_03236T0	96.88	288	9	0	1	288	1	288	0	566
1	A105_04964T0	Z519_02788T0	96.88	802	25	0	1	802	1	802	0	1598
1	A105_06162T0	Z519_04578T0	96.88	64	2	0	18	81	18	81	2.00E-42	135
1	A105_06728T0	Z519_06781T0	96.88	320	10	0	1	320	1	320	0	639

39	A105_07821T0	Z519_07637T0	96.88	544	17	0	1	544	1	544	0	1077
1	A105_07994T0	Z519_07830T0	96.88	320	9	1	1	320	1	319	0	631
1	A105_08007T0	Z519_07843T0	96.88	480	15	0	1	480	1	480	0	961
1	A105_10495T0	Z519_11371T0	96.88	384	12	0	1	384	1	384	0	619
1	A105_11759T0	Z519_02921T0	96.88	801	22	1	1	801	1	798	0	1498
19	A105_11845T0	Z519_01951T0	96.88	384	12	0	1	384	1	384	0	779
5	A105_11997T0	Z519_05734T0	96.88	833	26	0	1	833	1	833	0	1585
2	A105_12001T0	Z519_05730T0	96.88	896	28	0	1	896	1	896	0	1783
3	A105_13232T0	Z519_12518T0	96.88	481	15	0	1	481	1	481	0	933
118	A105_01599T0	Z519_01816T0	96.89	193	6	0	1	193	1	193	3.00E-138	391
5	A105_03645T0	Z519_09774T0	96.89	354	11	0	1	354	1	354	0	704
1	A105_04217T0	Z519_03497T0	96.89	837	26	0	1	837	118	954	0	1526
101	A105_04578T0	Z519_02406T0	96.89	322	10	0	1	322	1	322	0	645
47	A105_05017T0	Z519_12220T0	96.89	579	18	0	1	579	127	705	0	1148
40	A105_05177T0	Z519_08065T0	96.89	450	14	0	75	524	1	450	0	882
67	A105_05442T0	Z519_08319T0	96.89	578	18	0	165	742	1	578	0	1161
3	A105_05758T0	Z519_04979T0	96.89	1703	50	1	1	1700	1	1703	0	3443
2	A105_05997T0	Z519_04739T0	96.89	257	8	0	1	257	1	257	0	515
4	A105_06885T0	Z519_06614T0	96.89	257	8	0	10	266	158	414	0	514
1	A105_07485T0	Z519_06051T0	96.89	515	16	0	1	515	1	515	0	979
11	A105_07675T0	Z519_06239T0	96.89	643	20	0	1	643	1	643	0	1274
5	A105_07871T0	Z519_07701T0	96.89	514	15	1	1	514	1	513	0	1003
1	A105_08704T0	Z519_03955T0	96.89	931	29	0	1	931	1	931	0	1867
25	A105_09122T0	Z519_05233T0	96.89	482	15	0	1	482	1	482	0	942
2	A105_09554T0	Z519_01042T0	96.89	289	9	0	27	315	89	377	0	523
54	A105_10783T0	Z519_12283T0	96.89	579	18	0	1	579	1	579	0	1165
60	A105_10867T0	Z519_11405T0	96.89	354	11	0	1	354	1	354	0	669
27	A105_11868T0	Z519_01972T0	96.89	514	16	0	1	514	1	514	0	1035
27	A105_12003T0	Z519_05726T0	96.89	354	11	0	1	354	1	354	0	706
1	A105_00535T0	Z519_00542T0	96.9	323	10	0	1	323	1	323	0	647
3	A105_01678T0	Z519_01738T0	96.9	775	24	0	1	775	1	775	0	1431
1	A105_02497T0	Z519_07031T0	96.9	548	17	0	1	548	1	548	0	941
105	A105_02914T0	Z519_12762T0	96.9	549	17	0	1	549	1	549	0	1122
5	A105_04179T0	Z519_03457T0	96.9	548	17	0	1	548	1	548	0	1071
4	A105_04593T0	Z519_02421T0	96.9	323	10	0	1	323	1	323	0	645

2	A105_04948T0	Z519_02772T0	96.9	968	30	0	24	991	52	1019	0	1855
3	A105_05270T0	Z519_08143T0	96.9	323	10	0	1	323	1	323	0	650
2	A105_05453T0	Z519_08330T0	96.9	129	4	0	1	129	46	174	6.00E-65	197
2	A105_07456T0	Z519_06023T0	96.9	419	12	1	1	418	1	419	0	714
11	A105_07678T0	Z519_06242T0	96.9	709	22	0	1	709	1	709	0	1429
4	A105_08515T0	Z519_05536T0	96.9	355	11	0	1	355	1	355	0	708
1	A105_08777T0	Z519_03879T0	96.9	1128	35	0	1	1128	1	1128	0	2128
4	A105_08817T0	Z519_03837T0	96.9	743	23	0	1	743	1	743	0	1492
2	A105_08868T0	Z519_03785T0	96.9	1064	32	1	1	1064	1	1063	0	2063
49	A105_10127T0	Z519_04277T0	96.9	903	28	0	1	903	1	903	0	1747
47	A105_10480T0	Z519_11356T0	96.9	323	10	0	1	323	1	323	0	617
28	A105_11129T0	Z519_08946T0	96.9	645	20	0	1	645	94	738	0	1300
154	A105_11212T0	Z519_08871T0	96.9	516	16	0	1	516	1	516	0	1050
1	A105_11219T0	Z519_08861T0	96.9	323	10	0	1	323	1	323	0	585
2	A105_11276T0	Z519_08802T0	96.9	580	18	0	1	580	1	580	0	1174
3	A105_12251T0	Z519_04502T0	96.9	677	21	0	1	677	1	677	0	1328
90	A105_12534T0	Z519_02865T0	96.9	549	17	0	1	549	1	549	0	1068
2	A105_13197T0	Z519_12483T0	96.9	516	16	0	1	516	1	516	0	814
145	A105_13211T0	Z519_12497T0	96.9	484	15	0	40	523	1	484	0	978
1	A105_13448T0	Z519_12172T0	96.9	226	7	0	1	226	1	226	2.00E-163	454
6	A105_01878T0	Z519_01586T0	96.91	1685	52	0	1	1685	1	1685	0	3341
11	A105_02295T0	Z519_11681T0	96.91	291	9	0	1	291	1	291	3.00E-166	466
94	A105_02598T0	Z519_07128T0	96.91	841	22	2	1	841	524	1360	0	1643
167	A105_03248T0	Z519_10097T0	96.91	518	16	0	1	518	1	518	0	1046
2	A105_04058T0	Z519_03335T0	96.91	324	10	0	1	324	1	324	0	653
59	A105_04680T0	Z519_02510T0	96.91	583	18	0	1	583	1	583	0	1138
1	A105_05126T0	Z519_08015T0	96.91	97	3	0	1	97	1	97	6.00E-62	190
1	A105_06364T0	Z519_10676T0	96.91	517	16	0	1	517	1	517	0	975
154	A105_08118T0	Z519_09342T0	96.91	453	14	0	61	513	2	454	0	917
60	A105_10642T0	Z519_09830T0	96.91	1685	52	0	1	1685	1	1685	0	3329
46	A105_10900T0	Z519_11440T0	96.91	972	30	0	1	972	1	972	0	1915
1	A105_11487T0	Z519_08766T0	96.91	97	2	1	1	97	1	96	1.00E-47	149
147	A105_11734T0	Z519_02946T0	96.91	517	16	0	1	517	1	517	0	1044
20	A105_00138T0	Z519_00139T0	96.92	585	16	2	1	584	1	584	0	1173
2	A105_00382T0	Z519_00384T0	96.92	389	12	0	1	389	1	389	0	788

1	A105_02807T0	Z519_07338T0	96.92	325	10	0	1	325	1	325	0	654
177	A105_03007T0	Z519_12022T0	96.92	260	8	0	1	260	1	260	0	500
2	A105_03097T0	Z519_11941T0	96.92	325	10	0	1	325	1	325	0	657
2	A105_03462T0	Z519_09587T0	96.92	130	3	1	1	129	1	130	3.00E-66	199
21	A105_04738T0	Z519_02567T0	96.92	292	9	0	1	292	1	292	0	548
44	A105_04887T0	Z519_02711T0	96.92	260	8	0	1	260	1	260	3.00E-177	492
2	A105_06881T0	Z519_06618T0	96.92	617	13	1	1	617	10	620	0	1160
11	A105_08578T0	Z519_04066T0	96.92	422	13	0	1	422	1	422	0	846
3	A105_10675T0	Z519_09862T0	96.92	1168	36	0	1	1168	1	1168	0	2378
1	A105_10927T0	Z519_11466T0	96.92	585	18	0	1	585	1	585	0	1171
8	A105_11714T0	Z519_02965T0	96.92	812	24	1	1	811	1	812	0	1628
1	A105_12088T0	Z519_12348T0	96.92	519	16	0	1	519	1	519	0	949
153	A105_13066T0	Z519_12130T0	96.92	292	9	0	1	292	1	292	0	571
2	A105_00115T0	Z519_00116T0	96.93	424	13	0	1	424	1	424	0	827
1	A105_00470T0	Z519_00477T0	96.93	489	15	0	1	489	1	489	0	996
1	A105_00625T0	Z519_00635T0	96.93	1042	32	0	51	1092	1	1042	0	2070
2	A105_01816T0	Z519_01649T0	96.93	228	7	0	1	228	1	228	3.00E-166	461
45	A105_02488T0	Z519_07021T0	96.93	358	11	0	1	358	1	358	0	707
1	A105_02755T0	Z519_07287T0	96.93	586	18	0	1	586	1	586	0	925
11	A105_03123T0	Z519_09977T0	96.93	424	13	0	1	424	1	424	0	818
3	A105_03359T0	Z519_10182T0	96.93	554	17	0	1	554	115	668	0	1079
7	A105_05054T0	Z519_07945T0	96.93	521	16	0	1	521	5	525	0	1041
50	A105_05503T0	Z519_03619T0	96.93	488	15	0	31	518	1	488	0	1006
88	A105_06063T0	Z519_04677T0	96.93	293	9	0	1	293	1	293	0	581
7	A105_06130T0	Z519_04607T0	96.93	456	14	0	1	456	1	456	0	905
1	A105_06577T0	Z519_09088T0	96.93	293	9	0	1	293	1	293	0	573
7	A105_07330T0	Z519_05902T0	96.93	163	5	0	1	163	1	163	6.00E-114	324
74	A105_07930T0	Z519_07768T0	96.93	782	6	1	1	782	155	918	0	1463
4	A105_09460T0	Z519_01126T0	96.93	522	16	0	1	522	1	522	0	1016
2	A105_10120T0	Z519_04269T0	96.93	748	23	0	1	748	1	748	0	1303
2	A105_10802T0	Z519_12265T0	96.93	261	8	0	1	261	304	564	0	531
5	A105_10885T0	Z519_11424T0	96.93	945	23	2	135	1075	1	943	0	1825
1	A105_12870T0	Z519_07473T0	96.93	293	9	0	1	293	1	293	0	558
5	A105_00822T0	Z519_00770T0	96.94	589	18	0	1	589	215	803	0	1206
9	A105_01454T0	Z519_11814T0	96.94	392	11	1	1	392	1	391	0	726

73	A105_02167T0	Z519_01314T0	96.94	588	18	0	1	588	10	597	0	1106
1	A105_02385T0	Z519_11586T0	96.94	229	7	0	1	229	17	245	3.00E-164	457
4	A105_03291T0	Z519_10139T0	96.94	229	7	0	1	229	1	229	2.00E-167	464
2	A105_03358T0	Z519_10181T0	96.94	294	9	0	1	294	1	294	0	592
52	A105_04538T0	Z519_02365T0	96.94	327	10	0	1	327	1	327	0	639
8	A105_05217T0	Z519_08091T0	96.94	523	16	0	1	523	6	528	0	1062
32	A105_05840T0	Z519_04892T0	96.94	360	11	0	1	360	1	360	0	723
1	A105_08571T0	Z519_04072T0	96.94	196	6	0	1	196	1	196	4.00E-139	389
97	A105_08659T0	Z519_03997T0	96.94	621	19	0	1	621	1	621	0	1254
2	A105_09012T0	Z519_05117T0	96.94	196	6	0	1	196	1	196	1.00E-140	394
23	A105_10559T0	Z519_12585T0	96.94	555	17	0	1	555	4	558	0	1084
1	A105_11448T0	Z519_08727T0	96.94	817	23	1	1	817	1	815	0	1422
10	A105_01227T0	Z519_08495T0	96.95	1771	35	1	1	1752	1	1771	0	3353
6	A105_01547T0	Z519_01872T0	96.95	328	10	0	1	328	1	328	0	656
2	A105_02340T0	Z519_11632T0	96.95	426	13	0	1	426	1	426	0	811
66	A105_02458T0	Z519_06990T0	96.95	557	17	0	1	557	1	557	0	1108
1	A105_04421T0	Z519_02253T0	96.95	131	4	0	1	131	1	131	1.00E-87	253
24	A105_05077T0	Z519_07967T0	96.95	524	16	0	1	524	1	524	0	1036
2	A105_10711T0	Z519_09899T0	96.95	491	15	0	1	491	1	491	0	885
5	A105_11277T0	Z519_08801T0	96.95	328	10	0	1	328	1	328	0	650
2	A105_11761T0	Z519_02919T0	96.95	788	23	1	1	787	1	788	0	1574
5	A105_02671T0	Z519_07204T0	96.96	560	17	0	1	560	1	560	0	1008
3	A105_03388T0	Z519_10209T0	96.96	494	15	0	16	509	82	575	0	986
10	A105_03596T0	Z519_09723T0	96.96	428	13	0	1	428	1	428	0	855
1	A105_07417T0	Z519_05989T0	96.96	362	11	0	1	362	1	362	0	740
4	A105_08018T0	Z519_07855T0	96.96	263	8	0	1	263	1	263	0	533
1	A105_08910T0	Z519_03742T0	96.96	428	11	1	1	428	1	426	0	814
22	A105_09089T0	Z519_05199T0	96.96	560	17	0	1	560	1	560	0	1127
1	A105_09238T0	Z519_05348T0	96.96	428	13	0	1	428	1	428	0	788
62	A105_09432T0	Z519_01154T0	96.96	723	22	0	1	723	1	723	0	1459
3	A105_11218T0	Z519_08862T0	96.96	329	10	0	1	329	1	329	0	659
1	A105_11344T0	Z519_02115T0	96.96	329	10	0	1	329	1	329	0	643
6	A105_11724T0	Z519_02955T0	96.96	460	14	0	1	460	1	460	0	924
15	A105_11910T0	Z519_02013T0	96.96	493	15	0	1	493	1	493	0	974
2	A105_12697T0	Z519_09811T0	96.96	2562	78	0	1	2562	1	2562	0	5132

43	A105_00521T0	Z519_00528T0	96.97	956	29	0	18	973	4	959	0	1922
2	A105_02039T0	Z519_01417T0	96.97	429	13	0	1	429	1	429	0	828
3	A105_02569T0	Z519_07099T0	96.97	725	22	0	1	725	1	725	0	1432
1	A105_03847T0	Z519_03165T0	96.97	528	16	0	1	528	1	528	0	1029
72	A105_04354T0	Z519_02178T0	96.97	297	9	0	1	297	1	297	0	588
5	A105_05186T0	Z519_08075T0	96.97	330	10	0	1	330	1	330	0	661
9	A105_06539T0	Z519_09126T0	96.97	824	25	0	1	824	1	824	0	1665
59	A105_07058T0	Z519_06442T0	96.97	1619	49	0	1	1619	1	1619	0	3113
2	A105_08155T0	Z519_09379T0	96.97	198	6	0	1	198	53	250	3.00E-130	370
14	A105_08310T0	Z519_09525T0	96.97	396	12	0	1	396	1	396	0	797
5	A105_08849T0	Z519_03804T0	96.97	859	24	1	1	857	1	859	0	1617
1	A105_08961T0	Z519_05064T0	96.97	1155	30	2	1	1155	1	1150	0	2204
8	A105_09196T0	Z519_05310T0	96.97	330	10	0	1	330	1	330	0	671
1	A105_09367T0	Z519_01201T0	96.97	396	12	0	1	396	1	396	0	774
6	A105_10283T0	Z519_10949T0	96.97	594	18	0	1	594	1	594	0	1170
2	A105_11103T0	Z519_06903T0	96.97	297	9	0	1	297	1	297	0	590
1	A105_12453T0	Z519_12658T0	96.97	1552	33	3	1	1550	1	1540	0	2576
3	A105_12757T0	Z519_10815T0	96.97	264	8	0	1	264	1	264	0	506
1	A105_00497T0	Z519_00502T0	96.98	1061	32	0	1	1061	1	1061	0	2051
36	A105_00532T0	Z519_00539T0	96.98	629	19	0	23	651	23	651	0	1248
1	A105_02185T0	Z519_01293T0	96.98	530	16	0	1	530	1	530	0	1029
40	A105_02659T0	Z519_07191T0	96.98	529	16	0	1	529	1	529	0	1021
1	A105_03171T0	Z519_10021T0	96.98	463	14	0	1	463	1	463	0	892
144	A105_04251T0	Z519_03529T0	96.98	496	15	0	1	496	41	536	0	1003
1	A105_04517T0	Z519_02344T0	96.98	496	15	0	1	496	1	496	0	967
4	A105_06241T0	Z519_10770T0	96.98	1323	36	1	1	1319	1	1323	0	2590
1	A105_08086T0	Z519_04314T0	96.98	331	10	0	1	331	1	331	0	664
72	A105_09381T0	Z519_01187T0	96.98	1059	32	0	1	1059	1	1059	0	2078
153	A105_10161T0	Z519_12692T0	96.98	530	16	0	1	530	1	530	0	1061
8	A105_11894T0	Z519_01997T0	96.98	364	11	0	1	364	41	404	0	717
6	A105_12388T0	Z519_06288T0	96.98	827	24	1	1	827	1	826	0	1476
1	A105_12823T0	Z519_12542T0	96.98	596	17	1	1	596	52	646	0	1190
152	A105_00842T0	Z519_00788T0	96.99	531	16	0	3	533	2	532	0	1022
15	A105_02506T0	Z519_07040T0	96.99	332	10	0	1	332	1	332	0	659
4	A105_02592T0	Z519_07122T0	96.99	697	21	0	1	697	1	697	0	1338

2	A105_02964T0	Z519_12064T0	96.99	465	13	1	1	465	1	464	0	855
6	A105_03105T0	Z519_09958T0	96.99	365	11	0	1	365	1	365	0	717
1	A105_03443T0	Z519_10265T0	96.99	299	9	0	1	299	1	299	0	615
1	A105_04541T0	Z519_02368T0	96.99	133	4	0	1	133	1	133	2.00E-91	263
1	A105_05839T0	Z519_04893T0	96.99	299	8	1	1	299	1	298	2.00E-141	404
1	A105_06300T0	Z519_10723T0	96.99	133	4	0	1	133	1	133	1.00E-52	164
22	A105_07561T0	Z519_06125T0	96.99	632	19	0	1	632	1	632	0	1284
1	A105_09707T0	Z519_10500T0	96.99	133	4	0	1	133	1	133	1.00E-80	236
1	A105_10394T0	Z519_11270T0	96.99	732	22	0	1	732	1	732	0	1405
56	A105_12351T0	Z519_12436T0	96.99	1526	45	1	1	1525	1	1526	0	2805
5	A105_00231T0	Z519_00229T0	97	1465	41	1	1	1465	1	1462	0	2248
48	A105_00436T0	Z519_00442T0	97	333	10	0	1	333	1	333	0	627
8	A105_00670T0	Z519_00665T0	97	500	15	0	1	500	1	500	0	926
1	A105_02892T0	Z519_07423T0	97	899	23	1	5	903	30	924	0	1430
8	A105_03875T0	Z519_03193T0	97	600	14	1	1	596	1	600	0	1190
127	A105_04356T0	Z519_02180T0	97	233	7	0	35	267	1	233	8.00E-165	459
17	A105_04586T0	Z519_02414T0	97	333	10	0	1	333	1	333	0	679
1	A105_05162T0	Z519_08051T0	97	966	29	0	1	966	1	966	0	1857
1	A105_05855T0	Z519_04878T0	97	633	19	0	1	633	1	633	0	1271
14	A105_06048T0	Z519_04691T0	97	400	12	0	1	400	1	400	0	736
48	A105_06098T0	Z519_04645T0	97	333	10	0	1	333	1	333	0	658
3	A105_06155T0	Z519_04584T0	97	1001	30	0	1	1001	87	1087	0	2014
1	A105_07795T0	Z519_07610T0	97	1067	31	1	24	1089	24	1090	0	2100
13	A105_08012T0	Z519_07848T0	97	633	19	0	1	633	1	633	0	1283
1	A105_08167T0	Z519_09391T0	97	566	17	0	1	566	1	566	0	1144
6	A105_10059T0	Z519_04112T0	97	333	9	1	1	332	1	333	0	593
6	A105_11093T0	Z519_06893T0	97	267	8	0	1	267	6	272	5.00E-179	497
1	A105_11721T0	Z519_02958T0	97	766	23	0	1	766	1	766	0	1540
1	A105_01836T0	Z519_01626T0	97.01	635	10	1	1	635	1	626	0	1201
1	A105_02043T0	Z519_01413T0	97.01	201	6	0	1	201	1	201	1.00E-144	404
1	A105_02176T0	Z519_01302T0	97.01	368	11	0	1	368	1	368	0	673
1	A105_02296T0	Z519_11680T0	97.01	134	4	0	1	134	1	134	3.00E-79	233
103	A105_02595T0	Z519_07125T0	97.01	535	16	0	1	535	1	535	0	1066
1	A105_03570T0	Z519_09692T0	97.01	368	11	0	1	368	1	368	0	717
3	A105_04204T0	Z519_03483T0	97.01	602	18	0	9	610	1	602	0	1111

1	A105_04273T0	Z519_03551T0	97.01	67	2	0	1	67	1	67	2.00E-40	132
4	A105_05303T0	Z519_08176T0	97.01	401	12	0	1	401	1	401	0	788
6	A105_06896T0	Z519_06603T0	97.01	402	12	0	4	405	1	402	0	802
6	A105_07061T0	Z519_06439T0	97.01	902	27	0	1	902	1	902	0	1622
7	A105_07254T0	Z519_05832T0	97.01	935	28	0	1	935	71	1005	0	1858
12	A105_07744T0	Z519_07558T0	97.01	468	14	0	1	468	28	495	0	942
1	A105_08308T0	Z519_09523T0	97.01	201	6	0	57	257	1	201	1.00E-134	394
49	A105_08790T0	Z519_03868T0	97.01	468	14	0	1	468	1	468	0	939
1	A105_09234T0	Z519_05344T0	97.01	636	19	0	1	636	1	636	0	1269
1	A105_09693T0	Z519_10514T0	97.01	134	4	0	1	134	1	134	4.00E-89	258
1	A105_10106T0	Z519_04255T0	97.01	502	15	0	1	502	1	502	0	1009
2	A105_10734T0	Z519_09922T0	97.01	501	15	0	1	501	20	520	0	884
9	A105_10794T0	Z519_12273T0	97.01	737	22	0	1	737	14	750	0	1469
1	A105_11169T0	Z519_08909T0	97.01	1438	41	2	1	1438	641	2076	0	2465
1	A105_12686T0	Z519_09823T0	97.01	803	23	1	1	802	1	803	0	1194
1	A105_12726T0	Z519_09788T0	97.01	301	8	1	1	301	44	343	0	601
1	A105_12822T0	Z519_12540T0	97.01	334	10	0	1	334	1	334	0	669
2	A105_13165T0	Z519_04359T0	97.01	469	14	0	1	469	1	469	0	943
2	A105_13207T0	Z519_12493T0	97.01	334	10	0	1	334	1	334	0	667
2	A105_00485T0	Z519_00492T0	97.02	537	16	0	1	537	1	537	0	1039
1	A105_02638T0	Z519_07170T0	97.02	504	15	0	1	504	1	504	0	967
3	A105_03415T0	Z519_10237T0	97.02	436	13	0	1	436	1	436	0	877
50	A105_03487T0	Z519_09611T0	97.02	235	7	0	1	235	1	235	9.00E-169	468
1	A105_03726T0	Z519_03046T0	97.02	235	6	1	1	235	1	234	1.00E-155	435
2	A105_04492T0	Z519_02319T0	97.02	436	13	0	1	436	1	436	0	868
65	A105_05773T0	Z519_04964T0	97.02	705	20	1	1	705	1	704	0	1359
1	A105_08040T0	Z519_07875T0	97.02	168	5	0	1	168	1	168	1.00E-117	333
2	A105_08988T0	Z519_05092T0	97.02	336	10	0	1	336	1	336	0	667
5	A105_10167T0	Z519_12686T0	97.02	1241	34	1	1	1238	1	1241	0	2373
2	A105_10695T0	Z519_09881T0	97.02	403	12	0	1	403	1	403	0	785
10	A105_11802T0	Z519_02882T0	97.02	571	17	0	1	571	29	599	0	1139
1	A105_12488T0	Z519_02822T0	97.02	504	15	0	1	504	8	511	0	1027
3	A105_03817T0	Z519_03136T0	97.03	808	24	0	1	808	1	808	0	1593
2	A105_03872T0	Z519_03190T0	97.03	202	6	0	1	202	7	208	2.00E-147	411
13	A105_03910T0	Z519_03224T0	97.03	303	9	0	1	303	1	303	0	601

1	A105_04473T0	Z519_02302T0	97.03	101	3	0	20	120	3	103	2.00E-67	201
1	A105_04896T0	Z519_02720T0	97.03	1245	24	2	1	1241	1	1236	0	2331
3	A105_05946T0	Z519_04788T0	97.03	236	7	0	1	236	1	236	1.00E-173	480
7	A105_06717T0	Z519_06794T0	97.03	437	13	0	1	437	1	437	0	850
3	A105_10328T0	Z519_10994T0	97.03	876	26	0	11	886	11	886	0	1722
62	A105_10913T0	Z519_11454T0	97.03	471	14	0	1	471	1	471	0	915
49	A105_12810T0	Z519_12779T0	97.03	538	15	1	2	539	119	655	0	1083
2	A105_00574T0	Z519_00585T0	97.04	845	25	0	1	845	198	1042	0	1623
5	A105_00895T0	Z519_00844T0	97.04	641	19	0	1	641	1	641	0	1303
3	A105_01820T0	Z519_01644T0	97.04	575	17	0	1	575	55	629	0	1135
6	A105_02361T0	Z519_11610T0	97.04	641	19	0	1	641	1	641	0	1268
10	A105_04555T0	Z519_02383T0	97.04	506	15	0	1	506	1	506	0	990
2	A105_04568T0	Z519_02395T0	97.04	540	11	2	1	539	1	536	0	1036
1	A105_04678T0	Z519_02508T0	97.04	135	4	0	1	135	1	135	2.00E-73	218
1	A105_05393T0	Z519_08267T0	97.04	270	8	0	1	270	1	270	5.00E-91	273
55	A105_05780T0	Z519_04952T0	97.04	844	25	0	1	844	1	844	0	1661
29	A105_05956T0	Z519_04779T0	97.04	338	10	0	1	338	1	338	0	682
1	A105_08461T0	Z519_05591T0	97.04	270	8	0	1	270	1	270	0	541
36	A105_09199T0	Z519_05313T0	97.04	372	11	0	1	372	1	372	0	719
1	A105_11026T0	Z519_06828T0	97.04	338	10	0	1	338	1	338	0	651
7	A105_11716T0	Z519_02963T0	97.04	541	16	0	1	541	1	541	0	1063
5	A105_12939T0	Z519_11078T0	97.04	405	12	0	1	405	1	405	0	791
7	A105_00362T0	Z519_00361T0	97.05	1222	36	0	1	1222	1	1222	0	2438
13	A105_01147T0	Z519_08413T0	97.05	611	18	0	1	611	1	611	0	1234
59	A105_02531T0	Z519_07061T0	97.05	509	15	0	1	509	1	509	0	978
84	A105_02682T0	Z519_07214T0	97.05	576	17	0	1	576	1	576	0	1162
1	A105_03061T0	Z519_11977T0	97.05	1659	48	1	1	1659	1	1658	0	3148
1	A105_04144T0	Z519_03424T0	97.05	237	7	0	7	243	1	237	3.00E-172	477
23	A105_04843T0	Z519_02667T0	97.05	440	13	0	1	440	1	440	0	875
1	A105_06651T0	Z519_09016T0	97.05	441	13	0	1	441	1	441	0	833
2	A105_06961T0	Z519_06535T0	97.05	543	14	1	1	543	1	541	0	1055
7	A105_07501T0	Z519_06067T0	97.05	1222	36	0	1	1222	1	1222	0	2405
1	A105_10183T0	Z519_10849T0	97.05	339	10	0	1	339	1	339	0	663
1	A105_10575T0	Z519_12570T0	97.05	339	10	0	1	339	1	339	0	686
18	A105_11518T0	Z519_11581T0	97.05	305	9	0	1	305	1	305	0	616

4	A105_12097T0	Z519_12358T0	97.05	1494	43	1	1	1493	1	1494	0	2954
60	A105_12819T0	Z519_12537T0	97.05	339	10	0	1	339	1	339	0	662
2	A105_00045T0	Z519_00044T0	97.06	442	13	0	1	442	158	599	0	876
5	A105_00885T0	Z519_00834T0	97.06	238	7	0	1	238	1	238	6.00E-175	484
104	A105_00997T0	Z519_00923T0	97.06	545	16	0	1	545	1	545	0	1104
6	A105_01406T0	Z519_11861T0	97.06	647	19	0	1	647	62	708	0	1305
1	A105_01538T0	Z519_01882T0	97.06	68	1	1	1	67	1	68	3.00E-39	125
5	A105_01728T0	Z519_01709T0	97.06	272	8	0	1	272	1	272	0	549
159	A105_02143T0	Z519_01335T0	97.06	510	15	0	1	510	1	510	0	1016
2	A105_02297T0	Z519_11679T0	97.06	238	7	0	1	238	9	246	6.00E-173	479
1	A105_03842T0	Z519_03160T0	97.06	170	5	0	1	170	1	170	1.00E-115	328
3	A105_04128T0	Z519_03407T0	97.06	646	17	1	1	644	1	646	0	1293
1	A105_04430T0	Z519_02262T0	97.06	68	2	0	1	68	1	68	3.00E-45	142
2	A105_04509T0	Z519_02337T0	97.06	544	16	0	1	544	1	544	0	1084
1	A105_04781T0	Z519_02608T0	97.06	2445	71	1	1	2445	1	2444	0	4937
7	A105_05117T0	Z519_08007T0	97.06	579	17	0	1	579	1	579	0	1110
1	A105_05250T0	Z519_08121T0	97.06	204	6	0	1	204	1	204	7.00E-148	412
68	A105_07277T0	Z519_05855T0	97.06	340	10	0	1	340	1	340	0	688
1	A105_08450T0	Z519_05602T0	97.06	170	5	0	1	170	1	170	2.00E-118	335
14	A105_08730T0	Z519_03929T0	97.06	272	8	0	93	364	1	272	0	558
3	A105_08977T0	Z519_05081T0	97.06	374	11	0	1	374	1	374	0	725
4	A105_09105T0	Z519_05215T0	97.06	849	25	0	1	849	1	849	0	1707
1	A105_09361T0	Z519_01206T0	97.06	238	7	0	105	342	152	389	9.00E-171	484
3	A105_10687T0	Z519_09873T0	97.06	340	10	0	1	340	3	342	0	650
12	A105_11072T0	Z519_06872T0	97.06	136	4	0	1	136	1	136	1.00E-96	277
1	A105_11078T0	Z519_06878T0	97.06	102	3	0	1	102	1	102	2.00E-65	195
10	A105_11717T0	Z519_02962T0	97.06	306	9	0	1	306	1	306	0	607
3	A105_11834T0	Z519_01940T0	97.06	545	16	0	28	572	1	545	0	1087
1	A105_11897T0	Z519_02000T0	97.06	510	15	0	1	510	1	510	0	1000
122	A105_01889T0	Z519_01577T0	97.07	307	9	0	1	307	1	307	0	610
64	A105_02646T0	Z519_07178T0	97.07	307	9	0	1	307	1	307	0	608
1	A105_03136T0	Z519_09990T0	97.07	581	17	0	1	581	1	581	0	1162
1	A105_04440T0	Z519_02272T0	97.07	580	17	0	1	580	1	580	0	1083
149	A105_07306T0	Z519_05881T0	97.07	273	8	0	1	273	1	273	0	546
4	A105_07862T0	Z519_07693T0	97.07	273	8	0	1	273	1	273	0	512

1	A105_08572T0	Z519_04071T0	97.07	444	13	0	1	444	1	444	0	866
4	A105_09366T0	Z519_01202T0	97.07	648	19	0	1	648	1	648	0	1244
1	A105_09688T0	Z519_10519T0	97.07	273	8	0	1	273	1	273	0	514
43	A105_11371T0	Z519_02087T0	97.07	615	18	0	1	615	1	615	0	1174
59	A105_00414T0	Z519_00415T0	97.08	583	17	0	1	583	1	583	0	1124
2	A105_00469T0	Z519_00476T0	97.08	342	10	0	1	342	1	342	3.00E-174	493
1	A105_01155T0	Z519_08422T0	97.08	342	10	0	15	356	15	356	0	593
5	A105_02294T0	Z519_11682T0	97.08	1130	33	0	1	1130	1	1130	0	2249
29	A105_02655T0	Z519_07187T0	97.08	650	19	0	1	650	1	650	0	1307
4	A105_03644T0	Z519_09773T0	97.08	479	14	0	1	479	1	479	0	941
1	A105_04925T0	Z519_02750T0	97.08	513	14	1	1	512	1	513	0	956
9	A105_07009T0	Z519_06491T0	97.08	479	14	0	1	479	1	479	0	970
8	A105_07013T0	Z519_06488T0	97.08	582	17	0	1	582	1	582	0	1187
20	A105_08282T0	Z519_09503T0	97.08	719	21	0	1	719	135	853	0	1425
3	A105_08847T0	Z519_03806T0	97.08	925	27	0	1	925	1	925	0	1772
58	A105_08874T0	Z519_03780T0	97.08	445	13	0	1	445	1	445	0	877
1	A105_11097T0	Z519_06897T0	97.08	308	9	0	1	308	1	308	0	584
5	A105_12220T0	Z519_04534T0	97.08	343	10	0	17	359	63	405	0	676
1	A105_12294T0	Z519_04459T0	97.08	274	8	0	1	274	1	274	2.00E-172	481
3	A105_12705T0	Z519_09802T0	97.08	171	5	0	22	192	41	211	7.00E-118	337
3	A105_13322T0	Z519_05011T0	97.08	411	12	0	30	440	1	411	0	772
3	A105_13333T0	Z519_12808T0	97.08	857	24	1	1	857	1	856	0	1699
1	A105_00568T0	Z519_00579T0	97.09	309	9	0	1	309	1	309	0	627
3	A105_01382T0	Z519_11887T0	97.09	790	23	0	1	790	1	790	0	1497
1	A105_01891T0	Z519_01575T0	97.09	585	17	0	1	585	1	585	0	1117
8	A105_03129T0	Z519_09982T0	97.09	344	10	0	1	344	1	344	0	692
4	A105_04201T0	Z519_03480T0	97.09	618	16	1	1	618	1	616	0	1165
2	A105_04210T0	Z519_03489T0	97.09	103	3	0	1	103	1	103	2.00E-68	202
63	A105_05387T0	Z519_08261T0	97.09	1271	37	0	1	1271	1	1271	0	2380
12	A105_06320T0	Z519_10705T0	97.09	515	15	0	1	515	1	515	0	965
3	A105_06488T0	Z519_09176T0	97.09	618	18	0	1	618	1	618	0	1216
136	A105_07985T0	Z519_07821T0	97.09	619	18	0	1	619	1	619	0	1244
87	A105_08440T0	Z519_05611T0	97.09	584	17	0	1	584	81	664	0	1112
1	A105_09844T0	Z519_10373T0	97.09	378	11	0	1	378	1	378	0	743
1	A105_10063T0	Z519_04108T0	97.09	275	8	0	1	275	1	275	0	552

1	A105_10539T0	Z519_12604T0	97.09	275	7	1	1	275	1	274	6.00E-172	482
9	A105_11378T0	Z519_02079T0	97.09	481	14	0	1	481	1	481	0	960
1	A105_12690T0	Z519_09818T0	97.09	654	19	0	1	654	1	654	0	1119
5	A105_00187T0	Z519_00190T0	97.1	2485	72	0	1	2485	1	2485	0	4911
1	A105_02643T0	Z519_07175T0	97.1	1171	34	0	1	1171	1	1171	0	2251
99	A105_04357T0	Z519_02181T0	97.1	587	17	0	1	587	1	587	0	1183
4	A105_04600T0	Z519_02428T0	97.1	964	28	0	1	964	1	964	0	1826
3	A105_07465T0	Z519_06032T0	97.1	656	19	0	1	656	1	656	0	1290
1	A105_07596T0	Z519_06159T0	97.1	69	2	0	1	69	1	69	5.00E-44	138
1	A105_09473T0	Z519_01113T0	97.1	207	6	0	1	207	1	207	3.00E-145	406
1	A105_09781T0	Z519_10439T0	97.1	276	8	0	1	276	1	276	0	515
10	A105_12103T0	Z519_12364T0	97.1	276	8	0	1	276	1	276	0	555
14	A105_12177T0	Z519_10282T0	97.1	1136	33	0	1	1136	1	1136	0	2205
1	A105_12281T0	Z519_04473T0	97.1	483	14	0	1	483	1	483	0	884
29	A105_12413T0	Z519_06264T0	97.1	379	11	0	1	379	1	379	0	764
3	A105_13282T0	Z519_12151T0	97.1	723	20	1	1	722	1	723	0	1408
1	A105_01448T0	Z519_11820T0	97.11	691	20	0	1	691	1	691	0	1351
3	A105_01670T0	Z519_01746T0	97.11	519	15	0	1	519	1	519	0	1042
145	A105_02024T0	Z519_01432T0	97.11	554	16	0	1	554	1	554	0	1119
1	A105_03662T0	Z519_02983T0	97.11	969	28	0	1	969	1	969	0	1934
2	A105_03707T0	Z519_03026T0	97.11	864	25	0	1	864	1	864	0	1635
13	A105_03735T0	Z519_03055T0	97.11	277	8	0	1	277	1	277	0	533
153	A105_03766T0	Z519_03088T0	97.11	519	15	0	1	519	1	519	0	976
46	A105_03890T0	Z519_03205T0	97.11	901	26	0	1	901	15	915	0	1787
1	A105_04106T0	Z519_03379T0	97.11	968	24	1	1	968	1	964	0	1763
33	A105_04402T0	Z519_02233T0	97.11	381	11	0	1	381	1	381	0	701
1	A105_05819T0	Z519_04913T0	97.11	831	23	1	1	831	1	830	0	1515
3	A105_07462T0	Z519_06029T0	97.11	311	9	0	1	311	1	311	0	629
19	A105_07772T0	Z519_07586T0	97.11	1072	31	0	1	1072	1	1072	0	2147
1	A105_08431T0	Z519_05620T0	97.11	1106	32	0	1	1106	1	1106	0	2181
108	A105_08637T0	Z519_04021T0	97.11	554	16	0	1	554	1	554	0	1122
40	A105_08735T0	Z519_03924T0	97.11	760	19	1	1	760	1	757	0	1458
9	A105_09492T0	Z519_01091T0	97.11	970	28	0	1	970	1	970	0	1856
1	A105_09763T0	Z519_10459T0	97.11	485	13	1	1	485	1	484	0	921
1	A105_09950T0	Z519_04196T0	97.11	311	9	0	1	311	1	311	0	609

1	A105_10903T0	Z519_11443T0	97.11	762	22	0	1	762	1	762	0	1477
1	A105_10933T0	Z519_11472T0	97.11	693	19	1	1	692	1	693	0	1367
4	A105_12040T0	Z519_05688T0	97.11	3180	91	1	1	3179	1	3180	0	6293
1	A105_00930T0	Z519_00866T0	97.12	1043	29	1	1	1043	1	1042	0	1940
1	A105_01263T0	Z519_08529T0	97.12	208	6	0	1	208	1	208	2.00E-135	383
9	A105_01456T0	Z519_11812T0	97.12	416	12	0	1	416	1	416	0	818
1	A105_01714T0	Z519_01712T0	97.12	312	9	0	1	312	1	312	0	547
1	A105_01938T0	Z519_01522T0	97.12	312	9	0	7	318	1	312	0	559
1	A105_02376T0	Z519_11596T0	97.12	416	12	0	1	416	1	416	0	833
1	A105_02442T0	Z519_06974T0	97.12	104	3	0	36	139	1	104	4.00E-67	201
2	A105_03295T0	Z519_10143T0	97.12	452	13	0	1	452	1	452	0	924
1	A105_03340T0	Z519_10164T0	97.12	416	12	0	1	416	1	416	0	830
14	A105_03778T0	Z519_03100T0	97.12	139	4	0	1	139	1	139	4.00E-98	281
1	A105_03837T0	Z519_03155T0	97.12	626	18	0	1	626	1	626	0	1133
13	A105_04022T0	Z519_03319T0	97.12	278	8	0	1	278	1	278	0	557
1	A105_04152T0	Z519_03432T0	97.12	347	10	0	1	347	1	347	0	652
6	A105_05829T0	Z519_04903T0	97.12	904	26	0	1	904	1	904	0	1734
1	A105_06771T0	Z519_06729T0	97.12	451	13	0	149	599	1	451	0	876
1	A105_06806T0	Z519_06697T0	97.12	243	7	0	1	243	23	265	2.00E-177	504
3	A105_07036T0	Z519_06466T0	97.12	868	25	0	1	868	1	868	0	1739
1	A105_08044T0	Z519_07879T0	97.12	104	3	0	1	104	82	185	1.00E-69	209
3	A105_08460T0	Z519_05592T0	97.12	591	17	0	1	591	1	591	0	1150
12	A105_10141T0	Z519_04292T0	97.12	1144	33	0	1	1144	1	1144	0	2222
2	A105_10304T0	Z519_10969T0	97.12	243	7	0	1	243	1	243	2.00E-176	488
153	A105_10343T0	Z519_11014T0	97.12	312	9	0	1	312	1	312	0	624
1	A105_12950T0	Z519_11089T0	97.12	243	7	0	1	243	1	243	7.00E-175	484
1	A105_00442T0	Z519_00449T0	97.13	314	9	0	1	314	1	314	0	624
5	A105_01027T0	Z519_00950T0	97.13	418	12	0	1	418	1	418	0	835
1	A105_01199T0	Z519_08466T0	97.13	244	7	0	1	244	1	244	4.00E-177	490
14	A105_03795T0	Z519_03116T0	97.13	349	10	0	1	349	131	479	0	701
22	A105_04609T0	Z519_02437T0	97.13	279	5	1	1	279	1	276	0	533
1	A105_04626T0	Z519_02453T0	97.13	1427	41	0	1	1427	1	1427	0	2842
104	A105_07034T0	Z519_06468T0	97.13	558	16	0	1	558	1	558	0	1085
13	A105_07529T0	Z519_06091T0	97.13	244	7	0	6	249	18	261	2.00E-179	497
1	A105_07819T0	Z519_07635T0	97.13	697	20	0	1	697	1	697	0	1392

13	A105_07999T0	Z519_07835T0	97.13	279	8	0	1	279	1	279	0	538
34	A105_13434T0	Z519_12197T0	97.13	349	10	0	1	349	1	349	0	690
2	A105_00699T0	Z519_00693T0	97.14	454	12	1	1	454	1	453	0	872
2	A105_00863T0	Z519_00811T0	97.14	384	11	0	1	384	1	384	0	723
19	A105_02910T0	Z519_12766T0	97.14	384	8	1	1	384	1	381	0	768
1	A105_03014T0	Z519_12015T0	97.14	175	5	0	1	175	1	175	4.00E-126	355
2	A105_03030T0	Z519_12005T0	97.14	105	3	0	2	106	58	162	1.00E-71	213
1	A105_03090T0	Z519_11948T0	97.14	175	5	0	1	175	1	175	7.00E-125	352
1	A105_03398T0	Z519_10219T0	97.14	140	3	1	149	288	1	139	3.00E-87	259
1	A105_03454T0	Z519_10276T0	97.14	105	3	0	1	105	1	105	2.00E-71	210
1	A105_03564T0	Z519_09687T0	97.14	245	7	0	1	245	1	245	7.00E-158	441
5	A105_03802T0	Z519_03123T0	97.14	420	12	0	1	420	1	420	0	847
1	A105_04219T0	Z519_03499T0	97.14	245	7	0	1	245	1	245	3.00E-180	498
7	A105_04512T0	Z519_02340T0	97.14	803	22	1	2	804	497	1298	0	1603
144	A105_06414T0	Z519_10627T0	97.14	280	8	0	1	280	1	280	0	562
28	A105_06624T0	Z519_09041T0	97.14	524	15	0	1	524	1	524	0	1013
8	A105_06941T0	Z519_06557T0	97.14	385	11	0	1	385	1	385	0	781
1	A105_07674T0	Z519_06238T0	97.14	350	10	0	1	350	1	350	0	659
1	A105_07704T0	Z519_07527T0	97.14	768	22	0	1	768	1	768	0	1201
2	A105_08122T0	Z519_09345T0	97.14	524	15	0	1	524	1	524	0	1031
10	A105_08286T0	Z519_09507T0	97.14	490	14	0	1	490	1	490	0	991
7	A105_08642T0	Z519_04016T0	97.14	454	13	0	1	454	1	454	0	930
1	A105_08771T0	Z519_03885T0	97.14	140	4	0	1	140	1	140	4.00E-97	278
2	A105_11047T0	Z519_06848T0	97.14	175	5	0	1	175	165	339	3.00E-123	353
1	A105_11643T0	Z519_08655T0	97.14	140	4	0	1	140	1	140	4.00E-89	258
81	A105_11699T0	Z519_02979T0	97.14	873	25	0	1	873	1	873	0	1598
2	A105_12066T0	Z519_12327T0	97.14	1119	32	0	1	1119	1	1119	0	2159
1	A105_12495T0	Z519_02829T0	97.14	140	4	0	1	140	1	140	1.00E-98	283
1	A105_12583T0	Z519_05460T0	97.14	280	8	0	1	280	721	1000	0	586
16	A105_13149T0	Z519_04374T0	97.14	419	12	0	1	419	1	419	0	842
1	A105_00098T0	Z519_00097T0	97.15	351	10	0	1	351	1	351	0	680
10	A105_00862T0	Z519_00810T0	97.15	456	13	0	1	456	1	456	0	862
14	A105_02250T0	Z519_11729T0	97.15	561	15	1	1	560	1	561	0	1104
151	A105_02632T0	Z519_07161T0	97.15	632	18	0	1	632	1	632	0	1134
28	A105_02999T0	Z519_12030T0	97.15	281	8	0	44	324	43	323	0	566

1	A105_04211T0	Z519_03490T0	97.15	526	15	0	2	527	17	542	0	1033
3	A105_04791T0	Z519_02618T0	97.15	596	17	0	1	596	1	596	0	1169
1	A105_08083T0	Z519_04317T0	97.15	632	18	0	1	632	155	786	0	1255
39	A105_08187T0	Z519_09410T0	97.15	527	15	0	1	527	1	527	0	1008
1	A105_09368T0	Z519_01200T0	97.15	421	12	0	9	429	55	475	0	854
12	A105_09456T0	Z519_01130T0	97.15	491	14	0	1	491	1	491	0	922
1	A105_10490T0	Z519_11366T0	97.15	913	23	1	1	910	1	913	0	1618
2	A105_12025T0	Z519_05704T0	97.15	737	20	1	1	737	1	736	0	1452
22	A105_00012T0	Z519_00011T0	97.16	563	16	0	1	563	1	563	0	1120
24	A105_02289T0	Z519_11687T0	97.16	1477	42	0	1	1477	1	1477	0	2822
3	A105_05342T0	Z519_08215T0	97.16	387	10	1	1	386	1	387	0	691
4	A105_06594T0	Z519_09071T0	97.16	388	11	0	1	388	1	388	0	759
1	A105_06860T0	Z519_06642T0	97.16	282	8	0	21	302	1	282	0	566
1	A105_07836T0	Z519_07652T0	97.16	1304	37	0	1	1304	1	1304	0	2554
38	A105_07945T0	Z519_07787T0	97.16	774	22	0	1	774	1	774	0	1579
11	A105_09170T0	Z519_05283T0	97.16	352	10	0	16	367	34	385	0	710
20	A105_09935T0	Z519_04212T0	97.16	564	15	1	1	564	1	563	0	1082
84	A105_10661T0	Z519_09848T0	97.16	1373	38	1	1	1372	1	1373	0	2724
1	A105_11133T0	Z519_08942T0	97.16	810	21	1	1	808	1	810	0	1624
3	A105_11746T0	Z519_02934T0	97.16	352	10	0	1	352	1	352	0	689
2	A105_11766T0	Z519_02914T0	97.16	282	8	0	13	294	13	294	0	570
34	A105_00230T0	Z519_00228T0	97.17	565	15	1	1	565	155	718	0	1130
2	A105_00314T0	Z519_00323T0	97.17	530	15	0	1	530	1	530	0	1045
1	A105_01126T0	Z519_08399T0	97.17	283	8	0	1	283	1	283	0	551
1	A105_02370T0	Z519_11602T0	97.17	106	3	0	1	106	1	106	5.00E-71	209
1	A105_02812T0	Z519_07342T0	97.17	812	23	0	1	812	1	812	0	1454
10	A105_03693T0	Z519_03012T0	97.17	601	17	0	1	601	1	601	0	1219
8	A105_04138T0	Z519_03418T0	97.17	389	11	0	1	389	1	389	0	778
2	A105_05215T0	Z519_08089T0	97.17	389	11	0	1	389	1	389	0	733
7	A105_05245T0	Z519_08117T0	97.17	637	18	0	1	637	1	637	0	1287
6	A105_05879T0	Z519_04855T0	97.17	918	26	0	1	918	1	918	0	1808
16	A105_12049T0	Z519_05682T0	97.17	424	12	0	1	424	1	424	0	855
4	A105_12763T0	Z519_10822T0	97.17	318	9	0	1	318	1	318	0	634
31	A105_12840T0	Z519_07443T0	97.17	565	16	0	50	614	1	565	0	1140
9	A105_00590T0	Z519_00600T0	97.18	497	14	0	1	497	1	497	0	1000

2	A105_01658T0	Z519_01758T0	97.18	708	20	0	1	708	1	708	0	1414
1	A105_02006T0	Z519_01454T0	97.18	284	8	0	1	284	1	284	0	568
1	A105_02092T0	Z519_01388T0	97.18	1101	31	0	1	1101	1	1101	0	2221
3	A105_03174T0	Z519_10023T0	97.18	780	14	1	1	772	1	780	0	1544
4	A105_04306T0	Z519_03586T0	97.18	745	21	0	1	745	1	745	0	1436
1	A105_04782T0	Z519_02609T0	97.18	531	15	0	1	531	16	546	0	1070
3	A105_04941T0	Z519_02765T0	97.18	568	16	0	1	568	1	568	0	1067
40	A105_05192T0	Z519_08081T0	97.18	319	9	0	1	319	1	319	0	608
1	A105_07033T0	Z519_06469T0	97.18	390	11	0	1	390	1	390	0	763
14	A105_07741T0	Z519_07555T0	97.18	603	17	0	1	603	1	603	0	1203
161	A105_08376T0	Z519_05668T0	97.18	496	14	0	1	496	1	496	0	996
1	A105_09018T0	Z519_05123T0	97.18	531	15	0	1	531	1	531	0	1004
160	A105_09084T0	Z519_05195T0	97.18	496	14	0	1	496	1	496	0	1003
30	A105_09240T0	Z519_05350T0	97.18	354	10	0	1	354	1	354	0	715
4	A105_11779T0	Z519_02902T0	97.18	1028	29	0	1	1028	1	1028	0	2072
4	A105_12399T0	Z519_06277T0	97.18	426	12	0	1	426	1	426	0	835
89	A105_13170T0	Z519_04354T0	97.18	531	15	0	1	531	1	531	0	1041
1	A105_13196T0	Z519_12482T0	97.18	567	16	0	1	567	1	567	0	941
3	A105_13428T0	Z519_12203T0	97.18	142	4	0	16	157	1	142	1.00E-99	286
20	A105_00179T0	Z519_00181T0	97.19	569	16	0	1	569	1	569	0	1083
3	A105_00191T0	Z519_00193T0	97.19	782	22	0	1	782	1	782	0	1544
1	A105_04832T0	Z519_02656T0	97.19	570	16	0	1	570	1	570	0	1125
3	A105_05535T0	Z519_03651T0	97.19	427	12	0	1	427	1	427	0	844
1	A105_06576T0	Z519_09089T0	97.19	249	5	1	1	249	1	247	1.00E-162	454
1	A105_08433T0	Z519_05618T0	97.19	676	19	0	1	676	1	676	0	1223
4	A105_10665T0	Z519_09852T0	97.19	533	15	0	1	533	1	533	0	989
1	A105_10729T0	Z519_09917T0	97.19	534	15	0	1	534	1	534	0	874
10	A105_11383T0	Z519_02074T0	97.19	320	9	0	1	320	1	320	0	644
131	A105_12333T0	Z519_12418T0	97.19	533	15	0	1	533	1	533	0	1087
1	A105_12871T0	Z519_07474T0	97.19	391	11	0	1	391	1	391	0	790
9	A105_01277T0	Z519_08541T0	97.2	357	10	0	1	357	116	472	0	715
135	A105_02021T0	Z519_01436T0	97.2	535	15	0	2	536	3	537	0	1070
6	A105_03944T0	Z519_03241T0	97.2	749	21	0	1	749	1	749	0	1496
1	A105_04826T0	Z519_02651T0	97.2	107	3	0	1	107	1	107	7.00E-61	184
1	A105_05571T0	Z519_03684T0	97.2	214	6	0	1	214	1	214	4.00E-155	432

1	A105_06498T0	Z519_09166T0	97.2	250	7	0	1	250	1	250	7.00E-178	492
1	A105_07091T0	Z519_06408T0	97.2	143	4	0	1	143	1	143	2.00E-81	239
1	A105_07225T0	Z519_05802T0	97.2	715	20	0	1	715	1	715	0	1332
4	A105_08829T0	Z519_03824T0	97.2	250	7	0	26	275	24	273	0	503
16	A105_09098T0	Z519_05208T0	97.2	322	9	0	15	336	21	342	0	620
2	A105_09420T0	Z519_01165T0	97.2	536	14	1	1	536	1	535	0	790
22	A105_10314T0	Z519_10979T0	97.2	393	11	0	1	393	1	393	0	790
4	A105_12201T0	Z519_04550T0	97.2	572	16	0	1	572	1	572	0	1142
1	A105_01446T0	Z519_11822T0	97.21	287	8	0	1	287	1	287	3.00E-165	466
30	A105_03721T0	Z519_03041T0	97.21	323	9	0	1	323	1	323	0	648
40	A105_03779T0	Z519_03101T0	97.21	501	14	0	1	501	1	501	0	997
65	A105_04965T0	Z519_02789T0	97.21	1468	41	0	1	1468	1	1468	0	2891
2	A105_05148T0	Z519_08037T0	97.21	215	6	0	1	215	1	215	1.00E-140	395
8	A105_05684T0	Z519_11165T0	97.21	859	21	1	1	859	1	856	0	1697
1	A105_07869T0	Z519_07699T0	97.21	718	20	0	1	718	1	718	0	1461
1	A105_08446T0	Z519_05606T0	97.21	215	2	1	1	211	1	215	3.00E-122	348
1	A105_09760T0	Z519_10462T0	97.21	752	21	0	1	752	1	752	0	1446
1	A105_09794T0	Z519_10426T0	97.21	251	7	0	1	251	1	251	0	509
2	A105_10111T0	Z519_04260T0	97.21	537	15	0	1	537	1	537	0	1057
7	A105_10860T0	Z519_11398T0	97.21	251	7	0	1	251	1	251	0	511
2	A105_11355T0	Z519_02104T0	97.21	179	5	0	1	179	1	179	7.00E-127	357
61	A105_11615T0	Z519_08681T0	97.21	466	11	1	1	466	1	464	0	938
59	A105_12200T0	Z519_04551T0	97.21	359	10	0	1	359	1	359	0	640
14	A105_12914T0	Z519_11052T0	97.21	359	10	0	1	359	1	359	0	729
2	A105_00987T0	Z519_00918T0	97.22	180	5	0	116	295	50	229	1.00E-128	368
16	A105_03144T0	Z519_09997T0	97.22	324	9	0	1	324	1	324	0	650
1	A105_03719T0	Z519_03039T0	97.22	252	7	0	1	252	1	252	8.00E-143	404
159	A105_04622T0	Z519_02449T0	97.22	288	8	0	1	288	1	288	0	585
2	A105_05856T0	Z519_04877T0	97.22	252	7	0	1	252	1	252	3.00E-175	486
59	A105_06244T0	Z519_10767T0	97.22	720	20	0	1	720	1	720	0	1390
3	A105_06367T0	Z519_10673T0	97.22	72	2	0	1	72	1	72	4.00E-44	138
25	A105_06729T0	Z519_06780T0	97.22	431	12	0	1	431	1	431	0	851
4	A105_07286T0	Z519_05865T0	97.22	252	7	0	1	252	1	252	0	508
158	A105_07638T0	Z519_06203T0	97.22	539	13	1	1	537	1	539	0	1066
2	A105_07767T0	Z519_07580T0	97.22	360	10	0	1	360	1	360	0	721

1	A105_08262T0	Z519_09484T0	97.22	144	4	0	1	144	1	144	3.00E-98	281
60	A105_11886T0	Z519_01989T0	97.22	540	15	0	1	540	1	540	0	1090
1	A105_12094T0	Z519_12355T0	97.22	467	12	1	1	466	1	467	0	905
16	A105_02845T0	Z519_07375T0	97.23	289	8	0	1	289	1	289	0	583
5	A105_04091T0	Z519_03364T0	97.23	865	24	0	1	865	1	865	0	1751
27	A105_04194T0	Z519_03473T0	97.23	721	20	0	1	721	1	721	0	1457
282	A105_06912T0	Z519_06587T0	97.23	901	25	0	1	901	1	901	0	1806
8	A105_08288T0	Z519_09509T0	97.23	397	11	0	1	397	1	397	0	811
43	A105_08542T0	Z519_05509T0	97.23	614	17	0	1	614	71	684	0	1241
1	A105_08727T0	Z519_03931T0	97.23	397	11	0	1	397	1	397	0	782
42	A105_08768T0	Z519_03889T0	97.23	506	14	0	1	506	1	506	0	1025
1	A105_09205T0	Z519_05319T0	97.23	975	27	0	1	975	1	975	0	1837
1	A105_09310T0	Z519_01256T0	97.23	613	17	0	1	613	1	613	0	1145
22	A105_09327T0	Z519_01238T0	97.23	505	14	0	65	569	12	516	0	1030
75	A105_09664T0	Z519_10540T0	97.23	542	14	1	1	541	1	542	0	1059
1	A105_09723T0	Z519_10485T0	97.23	1010	28	0	1	1010	1	1010	0	2015
5	A105_09768T0	Z519_10454T0	97.23	975	27	0	1	975	1	975	0	1901
4	A105_10277T0	Z519_10944T0	97.23	541	15	0	1	541	1	541	0	1100
13	A105_10441T0	Z519_11317T0	97.23	577	16	0	1	577	1	577	0	1164
22	A105_11321T0	Z519_02139T0	97.23	614	17	0	19	632	19	632	0	1234
1	A105_11788T0	Z519_02893T0	97.23	289	8	0	1	289	1	289	0	550
2	A105_01008T0	Z519_00934T0	97.24	217	6	0	1	217	1	217	9.00E-145	405
7	A105_01148T0	Z519_08414T0	97.24	832	23	0	1	832	1	832	0	1637
1	A105_02031T0	Z519_01425T0	97.24	543	15	0	1	543	1	543	0	1007
8	A105_02111T0	Z519_01369T0	97.24	615	12	1	1	610	1	615	0	1239
1	A105_02465T0	Z519_06997T0	97.24	181	5	0	1	181	48	228	2.00E-127	362
1	A105_02645T0	Z519_07177T0	97.24	869	19	1	1	869	1	864	0	1697
8	A105_03010T0	Z519_12019T0	97.24	579	15	1	4	582	40	617	0	1124
15	A105_03453T0	Z519_10275T0	97.24	615	13	2	1	612	1	614	0	1154
1	A105_06959T0	Z519_06537T0	97.24	653	18	0	1	653	1	653	0	1284
77	A105_07040T0	Z519_06462T0	97.24	543	15	0	1	543	1	543	0	1018
1	A105_07180T0	Z519_06320T0	97.24	653	17	1	1	653	1	652	0	1276
15	A105_07308T0	Z519_05883T0	97.24	326	9	0	1	326	1	326	0	663
8	A105_09486T0	Z519_01097T0	97.24	434	12	0	1	434	118	551	0	868
208	A105_11694T0	Z519_08601T0	97.24	254	7	0	1	254	1	254	7.00E-179	495

12	A105_12008T0	Z519_05721T0	97.24	254	7	0	1	254	1	254	0	524
15	A105_12744T0	Z519_10803T0	97.24	254	7	0	1	254	1	254	0	502
134	A105_12813T0	Z519_12529T0	97.24	544	15	0	1	544	1	544	0	1103
1	A105_00026T0	Z519_00026T0	97.25	182	5	0	1	182	1	182	1.00E-127	359
1	A105_01115T0	Z519_08389T0	97.25	182	5	0	1	182	1	182	4.00E-129	363
4	A105_01732T0	Z519_01706T0	97.25	364	10	0	9	372	40	403	0	741
5	A105_02479T0	Z519_07013T0	97.25	437	12	0	1	437	1	437	0	889
1	A105_02633T0	Z519_07162T0	97.25	255	7	0	1	255	1	255	7.00E-163	455
4	A105_02895T0	Z519_07426T0	97.25	363	10	0	1	363	1	363	0	682
4	A105_02961T0	Z519_12067T0	97.25	947	26	0	1	947	1	947	0	1862
1	A105_04515T0	Z519_02342T0	97.25	400	11	0	1	400	1	400	0	763
8	A105_05657T0	Z519_11192T0	97.25	364	10	0	1	364	1	364	0	693
2	A105_05817T0	Z519_04915T0	97.25	255	7	0	1	255	89	343	0	526
2	A105_06143T0	Z519_04594T0	97.25	255	7	0	44	298	1	255	0	525
1	A105_07265T0	Z519_05844T0	97.25	182	5	0	1	182	1	182	4.00E-126	355
57	A105_08711T0	Z519_03948T0	97.25	436	12	0	1	436	1	436	0	830
28	A105_09226T0	Z519_05340T0	97.25	1565	43	0	1	1565	1	1565	0	3143
2	A105_09480T0	Z519_01105T0	97.25	182	5	0	1	182	1	182	5.00E-125	353
4	A105_09770T0	Z519_10452T0	97.25	509	14	0	1	509	1	509	0	1034
1	A105_10166T0	Z519_12687T0	97.25	581	16	0	1	581	22	602	0	1168
2	A105_12007T0	Z519_05722T0	97.25	255	4	1	1	255	1	252	6.00E-144	406
1	A105_01636T0	Z519_01779T0	97.26	73	2	0	1	73	316	388	6.00E-46	152
1	A105_01660T0	Z519_01756T0	97.26	1060	27	1	1	1060	1	1058	0	2001
85	A105_02224T0	Z519_11751T0	97.26	730	19	1	1	730	1	729	0	1493
2	A105_02354T0	Z519_11617T0	97.26	329	9	0	1	329	1	329	0	669
10	A105_02440T0	Z519_06972T0	97.26	548	15	0	1	548	1	548	0	1110
6	A105_02549T0	Z519_07080T0	97.26	365	10	0	1	365	1	365	0	746
3	A105_03287T0	Z519_10135T0	97.26	547	15	0	1	547	1	547	0	1021
60	A105_03741T0	Z519_03061T0	97.26	548	15	0	1	548	1	548	0	1094
3	A105_04132T0	Z519_03411T0	97.26	146	4	0	1	146	1	146	1.00E-103	296
1	A105_04310T0	Z519_03588T0	97.26	219	6	0	1	219	1	219	6.00E-163	452
1	A105_04733T0	Z519_02562T0	97.26	73	2	0	1	73	1	73	8.00E-45	140
1	A105_04762T0	Z519_02589T0	97.26	219	6	0	1	219	1	219	3.00E-134	379
29	A105_05612T0	Z519_03721T0	97.26	984	27	0	36	1019	31	1014	0	1979
22	A105_07742T0	Z519_07556T0	97.26	547	15	0	1	547	1	547	0	1081

2	A105_08337T0	Z519_09551T0	97.26	475	13	0	1	475	1	475	0	939
1	A105_08716T0	Z519_03942T0	97.26	73	2	0	1	73	1	73	2.00E-46	144
1	A105_08808T0	Z519_03846T0	97.26	402	11	0	1	402	1	402	0	814
1	A105_10211T0	Z519_10877T0	97.26	1133	31	0	1	1133	1	1133	0	2251
1	A105_10827T0	Z519_12241T0	97.26	475	12	1	1	475	1	474	0	926
12	A105_01483T0	Z519_11786T0	97.27	586	16	0	2	587	27	612	0	1142
21	A105_01495T0	Z519_01919T0	97.27	697	19	0	1	697	1	697	0	1310
23	A105_01575T0	Z519_01845T0	97.27	330	9	0	1	330	1	330	0	665
95	A105_03851T0	Z519_03169T0	97.27	622	17	0	1	622	1	622	0	1265
1	A105_05172T0	Z519_08060T0	97.27	256	7	0	1	256	1	256	2.00E-165	461
8	A105_07805T0	Z519_07620T0	97.27	586	15	1	1	585	1	586	0	1152
5	A105_10810T0	Z519_12258T0	97.27	183	5	0	1	183	1	183	8.00E-132	370
5	A105_12084T0	Z519_12344T0	97.27	330	9	0	1	330	1	330	0	665
1	A105_12445T0	Z519_12666T0	97.27	183	5	0	1	183	1	183	6.00E-130	365
1	A105_12754T0	Z519_10812T0	97.27	110	3	0	1	110	1	110	4.00E-77	225
1	A105_00569T0	Z519_00580T0	97.28	147	4	0	1	147	1	147	9.00E-69	207
40	A105_01238T0	Z519_08505T0	97.28	257	7	0	1	257	1	257	0	517
2	A105_01930T0	Z519_01530T0	97.28	257	7	0	1	257	1	257	0	511
4	A105_03299T0	Z519_10147T0	97.28	552	15	0	1	552	1	552	0	1090
12	A105_05530T0	Z519_03646T0	97.28	331	9	0	1	331	1	331	0	666
8	A105_06545T0	Z519_09122T0	97.28	589	16	0	1	589	1	589	0	1167
5	A105_07508T0	Z519_06074T0	97.28	368	10	0	1	368	1	368	0	733
51	A105_07965T0	Z519_07804T0	97.28	589	15	1	1	588	1	589	0	1139
2	A105_09217T0	Z519_05331T0	97.28	515	14	0	1	515	1	515	0	919
13	A105_11082T0	Z519_06882T0	97.28	331	9	0	1	331	1	331	0	662
88	A105_12913T0	Z519_11051T0	97.28	515	14	0	1	515	1	515	0	1031
29	A105_13120T0	Z519_11246T0	97.28	625	17	0	1	625	4	628	0	1260
13	A105_00037T0	Z519_00037T0	97.29	665	18	0	1	665	1	665	0	1323
1	A105_00494T0	Z519_00499T0	97.29	295	8	0	1	295	1	295	0	597
1	A105_01371T0	Z519_11898T0	97.29	739	20	0	1	739	1	739	0	1504
1	A105_02177T0	Z519_01301T0	97.29	221	5	1	1	221	1	220	3.00E-130	369
15	A105_03229T0	Z519_10079T0	97.29	295	8	0	1	295	1	295	0	600
6	A105_06206T0	Z519_10793T0	97.29	369	10	0	1	369	1	369	0	748
1	A105_06578T0	Z519_09087T0	97.29	332	9	0	1	332	1	332	0	650
1	A105_06972T0	Z519_06524T0	97.29	332	9	0	1	332	1	332	0	646

6	A105_07042T0	Z519_06460T0	97.29	442	12	0	1	442	1	442	0	900
12	A105_08164T0	Z519_09388T0	97.29	479	13	0	1	479	1	479	0	961
1	A105_08258T0	Z519_09480T0	97.29	554	15	0	1	554	1	554	0	1052
5	A105_09868T0	Z519_10349T0	97.29	517	14	0	1	517	1	517	0	1013
153	A105_11545T0	Z519_11551T0	97.29	479	13	0	9	487	31	509	0	959
2	A105_11605T0	Z519_08689T0	97.29	258	7	0	1	258	1	258	0	516
4	A105_03142T0	Z519_09995T0	97.3	370	10	0	7	376	1	370	0	759
11	A105_04453T0	Z519_02285T0	97.3	408	11	0	1	408	1	408	0	781
4	A105_05219T0	Z519_08093T0	97.3	296	8	0	1	296	1	296	0	592
2	A105_05671T0	Z519_11178T0	97.3	371	7	1	1	368	1	371	0	701
1	A105_07017T0	Z519_06484T0	97.3	371	10	0	1	371	1	371	0	752
1	A105_07261T0	Z519_05840T0	97.3	1259	33	1	1	1259	1	1258	0	2493
1	A105_07685T0	Z519_07508T0	97.3	371	10	0	1	371	1	371	0	748
1	A105_07812T0	Z519_07627T0	97.3	185	5	0	17	201	1	185	1.00E-131	370
3	A105_09659T0	Z519_10545T0	97.3	407	11	0	1	407	1	407	0	800
6	A105_09991T0	Z519_04178T0	97.3	445	12	0	1	445	1	445	0	900
107	A105_11168T0	Z519_08909T0	97.3	555	15	0	1	555	1	555	0	1156
12	A105_13000T0	Z519_04415T0	97.3	482	13	0	1	482	1	482	0	921
6	A105_00151T0	Z519_00151T0	97.31	446	12	0	1	446	1	446	0	895
111	A105_01985T0	Z519_01474T0	97.31	557	15	0	1	557	1	557	0	1129
1	A105_03963T0	Z519_03262T0	97.31	631	17	0	1	631	1	631	0	1239
5	A105_03971T0	Z519_03270T0	97.31	744	19	1	1	743	1	744	0	1362
3	A105_03973T0	Z519_03272T0	97.31	260	7	0	1	260	1	260	0	522
1	A105_04690T0	Z519_02519T0	97.31	186	5	0	1	186	1	186	1.00E-105	304
163	A105_05720T0	Z519_11130T0	97.31	260	7	0	1	260	1	260	0	522
1	A105_05835T0	Z519_04897T0	97.31	260	5	2	1	260	1	258	7.00E-159	445
4	A105_06394T0	Z519_10648T0	97.31	669	18	0	1	669	1	669	0	1346
2	A105_08353T0	Z519_09567T0	97.31	335	9	0	1	335	1	335	0	674
24	A105_08890T0	Z519_03763T0	97.31	483	13	0	1	483	1	483	0	951
1	A105_09511T0	Z519_01079T0	97.31	334	9	0	1	334	1	334	0	606
1	A105_12127T0	Z519_12387T0	97.31	928	25	0	1	928	1	928	0	1853
18	A105_13221T0	Z519_12508T0	97.31	335	9	0	1	335	1	335	0	670
6	A105_00604T0	Z519_00615T0	97.32	1267	31	2	1	1267	1	1264	0	2382
20	A105_01164T0	Z519_08432T0	97.32	410	9	1	1	410	1	408	0	819
1	A105_03955T0	Z519_03254T0	97.32	149	4	0	65	213	1	149	2.00E-108	311

92	A105_03975T0	Z519_03274T0	97.32	560	13	2	1	559	1	559	0	964
13	A105_04565T0	Z519_02392T0	97.32	858	23	0	1	858	1	858	0	1726
6	A105_05048T0	Z519_07939T0	97.32	149	4	0	1	149	1	149	1.00E-105	301
91	A105_05602T0	Z519_03710T0	97.32	522	14	0	1	522	1	522	0	1047
28	A105_06950T0	Z519_06547T0	97.32	635	17	0	1	635	1	635	0	1266
1	A105_08137T0	Z519_09360T0	97.32	523	9	1	1	518	1	523	0	978
136	A105_08277T0	Z519_09498T0	97.32	522	14	0	1	522	1	522	0	1056
16	A105_08314T0	Z519_09529T0	97.32	336	9	0	1	336	1	336	0	647
2	A105_08826T0	Z519_03828T0	97.32	671	18	0	1	671	1	671	0	958
37	A105_08951T0	Z519_05054T0	97.32	1565	42	0	1	1565	1	1565	0	3094
2	A105_10430T0	Z519_11305T0	97.32	523	13	1	1	523	1	522	0	995
2	A105_11996T0	Z519_05735T0	97.32	448	12	0	10	457	1	448	0	915
1	A105_13119T0	Z519_11245T0	97.32	596	16	0	1	596	1	596	0	1134
1	A105_00167T0	Z519_00167T0	97.33	787	21	0	1	787	1	787	0	1450
24	A105_00246T0	Z519_00245T0	97.33	561	8	1	1	554	1	561	0	1110
76	A105_00631T0	Z519_00642T0	97.33	487	13	0	1	487	1	487	0	964
2	A105_00949T0	Z519_00883T0	97.33	486	13	0	1	486	1	486	0	981
124	A105_02769T0	Z519_07301T0	97.33	599	16	0	1	599	1	599	0	1080
1	A105_03665T0	Z519_02986T0	97.33	150	4	0	1	150	1	150	5.00E-104	297
1	A105_03703T0	Z519_03022T0	97.33	599	16	0	1	599	1	599	0	1124
2	A105_04245T0	Z519_03523T0	97.33	486	13	0	1	486	1	486	0	982
74	A105_04833T0	Z519_02658T0	97.33	637	15	1	1	635	1	637	0	1172
154	A105_05721T0	Z519_11129T0	97.33	300	8	0	1	300	1	300	0	584
1	A105_06456T0	Z519_09204T0	97.33	675	18	0	1	675	1	675	0	1381
8	A105_07528T0	Z519_06090T0	97.33	337	9	0	1	337	1	337	0	676
51	A105_08787T0	Z519_03870T0	97.33	450	12	0	1	450	1	450	0	910
2	A105_08794T0	Z519_03864T0	97.33	75	2	0	14	88	7	81	6.00E-49	153
4	A105_09860T0	Z519_10357T0	97.33	711	19	0	1	711	1	711	0	1390
106	A105_10804T0	Z519_12264T0	97.33	599	16	0	1	599	1	599	0	1156
45	A105_12588T0	Z519_05454T0	97.33	1050	28	0	32	1081	1	1050	0	2107
2	A105_00958T0	Z519_00892T0	97.34	413	11	0	1	413	1	413	0	830
16	A105_01921T0	Z519_01539T0	97.34	413	11	0	1	413	1	413	0	782
1	A105_01975T0	Z519_01484T0	97.34	188	5	0	1	188	50	237	1.00E-136	384
1	A105_02670T0	Z519_07203T0	97.34	188	4	1	1	188	1	187	2.00E-130	367
19	A105_03863T0	Z519_03181T0	97.34	602	16	0	1	602	1	602	0	1179

1	A105_05834T0	Z519_04898T0	97.34	564	15	0	1	564	1	564	0	1087
155	A105_05957T0	Z519_04778T0	97.34	526	14	0	1	526	1	526	0	1037
154	A105_06079T0	Z519_04664T0	97.34	527	14	0	1	527	1	527	0	1046
4	A105_07021T0	Z519_06480T0	97.34	526	14	0	1	526	1	526	0	1071
3	A105_07362T0	Z519_05934T0	97.34	715	19	0	1	715	1	715	0	1387
4	A105_07663T0	Z519_06228T0	97.34	263	7	0	1	263	1	263	0	524
62	A105_08645T0	Z519_04013T0	97.34	564	15	0	1	564	1	564	0	1135
2	A105_08662T0	Z519_03995T0	97.34	488	13	0	1	488	1	488	0	910
1	A105_08860T0	Z519_03794T0	97.34	826	22	0	1	826	1	826	0	1694
10	A105_08985T0	Z519_05089T0	97.34	188	5	0	1	188	1	188	4.00E-135	379
62	A105_09523T0	Z519_01065T0	97.34	752	20	0	1	752	1	752	0	1423
36	A105_12253T0	Z519_04500T0	97.34	488	13	0	1	488	176	663	0	983
66	A105_00634T0	Z519_00645T0	97.35	566	13	2	1	565	128	692	0	1086
3	A105_01988T0	Z519_01471T0	97.35	151	4	0	159	309	1	151	1.00E-106	310
1	A105_03947T0	Z519_03246T0	97.35	339	5	1	1	339	1	335	0	586
2	A105_04841T0	Z519_02665T0	97.35	1776	46	1	1	1776	1	1775	0	3396
1	A105_05513T0	Z519_03627T0	97.35	113	3	0	1	113	1	113	1.00E-78	229
1	A105_06049T0	Z519_04690T0	97.35	491	13	0	1	491	1	491	0	981
9	A105_09245T0	Z519_05355T0	97.35	1244	33	0	1	1244	1	1244	0	2496
5	A105_10121T0	Z519_04270T0	97.35	189	1	1	1	185	1	189	1.00E-123	350
2	A105_11964T0	Z519_05768T0	97.35	452	12	0	1	452	1	452	0	877
7	A105_12143T0	Z519_09255T0	97.35	151	4	0	1	151	140	290	1.00E-102	298
2	A105_12696T0	Z519_09812T0	97.35	339	9	0	4	342	147	485	0	663
140	A105_00665T0	Z519_00660T0	97.36	493	12	1	1	492	1	493	0	990
1	A105_01674T0	Z519_01742T0	97.36	569	15	0	2	570	133	701	0	1145
3	A105_02030T0	Z519_01426T0	97.36	265	7	0	1	265	1	265	0	523
135	A105_02597T0	Z519_07127T0	97.36	531	14	0	1	531	1	531	0	1074
29	A105_04010T0	Z519_03307T0	97.36	341	9	0	1	341	17	357	0	693
50	A105_04786T0	Z519_02613T0	97.36	454	12	0	1	454	1	454	0	883
51	A105_05298T0	Z519_08172T0	97.36	606	16	0	1	606	1	606	0	1215
18	A105_06402T0	Z519_10639T0	97.36	341	9	0	1	341	1	341	0	657
30	A105_06540T0	Z519_09125T0	97.36	493	13	0	1	493	1	493	0	992
1	A105_07702T0	Z519_07524T0	97.36	645	17	0	1	645	1	645	0	1216
2	A105_08223T0	Z519_09445T0	97.36	455	12	0	1	455	1	455	0	917
90	A105_08530T0	Z519_05522T0	97.36	493	13	0	1	493	1	493	0	960

23	A105_08652T0	Z519_04004T0	97.36	1135	30	0	1	1135	1	1135	0	2249
1	A105_09438T0	Z519_01148T0	97.36	947	25	0	1	947	1	947	0	1887
2	A105_12074T0	Z519_12336T0	97.36	607	16	0	1	607	1	607	0	1174
1	A105_12428T0	Z519_06248T0	97.36	265	7	0	1	265	1	265	7.00E-126	362
30	A105_12529T0	Z519_02860T0	97.36	605	16	0	1	605	1	605	0	1195
164	A105_13124T0	Z519_11250T0	97.36	531	14	0	1	531	1	531	0	1065
3	A105_13206T0	Z519_12492T0	97.36	1097	29	0	1	1097	1	1097	0	2122
160	A105_13210T0	Z519_12496T0	97.36	530	14	0	1	530	1	530	0	1051
2	A105_00018T0	Z519_00017T0	97.37	799	21	0	34	832	1	799	0	1591
1	A105_00564T0	Z519_00575T0	97.37	1103	22	2	1	1099	1	1100	0	1998
4	A105_00572T0	Z519_00583T0	97.37	304	8	0	1	304	1	304	0	535
9	A105_02713T0	Z519_07250T0	97.37	570	15	0	1	570	1	570	0	1167
18	A105_03571T0	Z519_09693T0	97.37	304	8	0	1	304	68	371	0	611
2	A105_04056T0	Z519_03333T0	97.37	571	15	0	1	571	1	571	0	1050
1	A105_04817T0	Z519_02642T0	97.37	342	9	0	1	342	1	342	0	676
1	A105_04936T0	Z519_02760T0	97.37	1750	46	0	1	1750	1	1750	0	3515
1	A105_05990T0	Z519_04746T0	97.37	342	9	0	1	342	25	366	0	601
1	A105_07224T0	Z519_05801T0	97.37	876	23	0	1	876	1	876	0	1736
4	A105_07944T0	Z519_07786T0	97.37	723	19	0	1	723	129	851	0	1337
5	A105_09044T0	Z519_05156T0	97.37	570	15	0	1	570	1	570	0	1120
19	A105_09145T0	Z519_05255T0	97.37	304	8	0	1	304	1	304	0	616
10	A105_09198T0	Z519_05312T0	97.37	685	18	0	1	685	133	817	0	1315
4	A105_09218T0	Z519_05332T0	97.37	457	12	0	1	457	1	457	0	919
1	A105_09520T0	Z519_01068T0	97.37	190	5	0	1	190	1	190	1.00E-117	335
15	A105_11691T0	Z519_08604T0	97.37	684	18	0	1	684	1	684	0	1378
1	A105_11770T0	Z519_02910T0	97.37	685	18	0	1	685	1	685	0	1356
23	A105_00108T0	Z519_00109T0	97.38	343	9	0	1	343	1	343	0	694
1	A105_00400T0	Z519_00402T0	97.38	229	6	0	1	229	1	229	1.00E-159	444
1	A105_01112T0	Z519_08386T0	97.38	763	19	1	1	763	1	762	0	1436
22	A105_01624T0	Z519_01793T0	97.38	1223	32	0	1	1223	1	1223	0	2386
2	A105_01868T0	Z519_01596T0	97.38	267	7	0	1	267	1	267	0	536
2	A105_02937T0	Z519_12091T0	97.38	2058	54	0	1	2058	79	2136	0	4052
3	A105_03158T0	Z519_10008T0	97.38	382	10	0	1	382	1	382	0	741
2	A105_03424T0	Z519_10246T0	97.38	305	8	0	1	305	1	305	0	605
1	A105_03911T0	Z519_03225T0	97.38	650	17	0	1	650	1	650	0	1246

3	A105_04361T0	Z519_02186T0	97.38	191	5	0	1	191	1	191	2.00E-137	385
1	A105_04816T0	Z519_02641T0	97.38	191	5	0	1	191	1	191	1.00E-133	375
3	A105_04866T0	Z519_02690T0	97.38	497	13	0	1	497	1	497	0	983
2	A105_06346T0	Z519_10693T0	97.38	420	11	0	1	420	1	420	0	853
17	A105_06623T0	Z519_09042T0	97.38	267	7	0	1	267	1	267	0	540
15	A105_06718T0	Z519_06791T0	97.38	650	17	0	1	650	20	669	0	1313
23	A105_06913T0	Z519_06586T0	97.38	344	9	0	1	344	1	344	0	701
6	A105_07127T0	Z519_06374T0	97.38	267	7	0	1	267	1	267	0	529
1	A105_07327T0	Z519_05899T0	97.38	534	14	0	1	534	1	534	0	1065
1	A105_07617T0	Z519_06180T0	97.38	343	9	0	1	343	1	343	0	600
1	A105_07907T0	Z519_07737T0	97.38	610	16	0	3	612	10	619	0	1233
3	A105_08270T0	Z519_09492T0	97.38	229	6	0	1	229	1	229	4.00E-135	382
40	A105_08512T0	Z519_05539T0	97.38	497	13	0	1	497	1	497	0	997
2	A105_08558T0	Z519_04086T0	97.38	534	14	0	1	534	5	538	0	1070
10	A105_08674T0	Z519_03985T0	97.38	496	11	1	1	496	1	494	0	979
1	A105_08859T0	Z519_03795T0	97.38	229	6	0	1	229	1	229	2.00E-160	446
13	A105_09345T0	Z519_01222T0	97.38	991	26	0	1	991	1	991	0	1980
1	A105_09483T0	Z519_01100T0	97.38	878	23	0	1	878	1	878	0	1449
1	A105_09579T0	Z519_01017T0	97.38	191	5	0	1	191	1	191	6.00E-133	374
89	A105_10247T0	Z519_10912T0	97.38	534	14	0	1	534	1	534	0	1035
1	A105_11623T0	Z519_08672T0	97.38	344	9	0	1	344	1	344	0	708
1	A105_12150T0	Z519_09263T0	97.38	381	10	0	1	381	1	381	0	774
58	A105_12988T0	Z519_04405T0	97.38	534	14	0	1	534	1	534	0	1071
114	A105_13034T0	Z519_04451T0	97.38	305	8	0	1	305	1	305	0	592
1	A105_00315T0	Z519_00324T0	97.39	421	11	0	1	421	1	421	0	844
7	A105_00440T0	Z519_00447T0	97.39	1339	35	0	1	1339	1	1339	0	2578
153	A105_02311T0	Z519_11664T0	97.39	498	13	0	1	498	1	498	0	946
1	A105_02677T0	Z519_07210T0	97.39	268	7	0	1	268	1	268	1.00E-157	442
2	A105_03808T0	Z519_03129T0	97.39	345	9	0	1	345	1	345	0	704
9	A105_04243T0	Z519_03521T0	97.39	422	11	0	1	422	1	422	0	827
97	A105_05912T0	Z519_04822T0	97.39	614	16	0	1	614	1	614	0	1250
8	A105_08831T0	Z519_03822T0	97.39	575	15	0	1	575	1	575	0	1137
3	A105_08861T0	Z519_03793T0	97.39	459	5	1	1	452	1	459	0	921
7	A105_09962T0	Z519_04185T0	97.39	307	8	0	1	307	1	307	0	617
13	A105_10977T0	Z519_11510T0	97.39	422	11	0	1	422	1	422	0	840

1	A105_12282T0	Z519_04472T0	97.39	268	7	0	1	268	1	268	0	541
51	A105_12563T0	Z519_05483T0	97.39	421	11	0	1	421	1	421	0	832
2	A105_12605T0	Z519_05437T0	97.39	306	8	0	1	306	1	306	0	612
99	A105_00176T0	Z519_00178T0	97.4	578	15	0	1	578	1	578	0	1165
2	A105_01228T0	Z519_08496T0	97.4	384	10	0	1	384	1	384	0	731
7	A105_01287T0	Z519_08552T0	97.4	691	18	0	1	691	1	691	0	1419
77	A105_01461T0	Z519_11807T0	97.4	577	15	0	1	577	1	577	0	1138
1	A105_02090T0	Z519_01390T0	97.4	192	5	0	1	192	1	192	1.00E-128	363
102	A105_02635T0	Z519_07164T0	97.4	500	13	0	1	500	1	500	0	950
2	A105_03080T0	Z519_11958T0	97.4	539	14	0	1	539	1	539	0	1051
1	A105_03659T0	Z519_02980T0	97.4	423	11	0	1	423	186	608	0	838
1	A105_05462T0	Z519_08339T0	97.4	308	8	0	1	308	1	308	0	621
1	A105_05597T0	Z519_03706T0	97.4	923	24	0	1	923	1	923	0	1762
63	A105_05713T0	Z519_11137T0	97.4	576	15	0	1	576	1	576	0	1169
11	A105_06636T0	Z519_09029T0	97.4	308	8	0	1	308	1	308	0	582
36	A105_07338T0	Z519_05910T0	97.4	770	20	0	1	770	1	770	0	1569
2	A105_09313T0	Z519_01253T0	97.4	462	12	0	1	462	1	462	0	926
7	A105_09888T0	Z519_10330T0	97.4	385	10	0	1	385	1	385	0	787
1	A105_11024T0	Z519_06826T0	97.4	77	2	0	1	77	1	77	2.00E-48	150
5	A105_00225T0	Z519_00223T0	97.41	579	15	0	1	579	1	579	0	1143
1	A105_00682T0	Z519_00677T0	97.41	348	9	0	1	348	1	348	0	703
2	A105_00887T0	Z519_00836T0	97.41	927	24	0	1	927	1	927	0	1825
1	A105_02817T0	Z519_07347T0	97.41	309	8	0	1	309	1	309	0	543
6	A105_03330T0	Z519_10154T0	97.41	811	21	0	1	811	1	811	0	1593
1	A105_03832T0	Z519_03150T0	97.41	116	3	0	1	116	1	116	3.00E-79	231
25	A105_04121T0	Z519_03399T0	97.41	463	12	0	1	463	1	463	0	886
1	A105_04751T0	Z519_02579T0	97.41	232	6	0	1	232	1	232	2.00E-164	456
3	A105_05104T0	Z519_07994T0	97.41	193	5	0	1	193	1	193	5.00E-140	392
10	A105_07112T0	Z519_06388T0	97.41	812	20	1	1	811	1	812	0	1605
6	A105_10581T0	Z519_12564T0	97.41	464	12	0	1	464	1	464	0	924
4	A105_12157T0	Z519_09270T0	97.41	425	11	0	1	425	1	425	0	843
2	A105_12953T0	Z519_11091T0	97.41	696	18	0	1	696	1	696	0	1401
2	A105_13194T0	Z519_12480T0	97.41	116	3	0	1	116	1	116	8.00E-81	239
1	A105_00207T0	Z519_00209T0	97.42	1009	26	0	1	1009	1	1009	0	1894
1	A105_00365T0	Z519_00364T0	97.42	388	10	0	1	388	1	388	0	780

1	A105_01130T0	Z519_08403T0	97.42	155	4	0	1	155	1	155	2.00E-110	313
1	A105_01842T0	Z519_01621T0	97.42	543	14	0	1	543	1	543	0	1076
2	A105_01847T0	Z519_01616T0	97.42	155	4	0	1	155	1	155	9.00E-105	299
25	A105_03780T0	Z519_03102T0	97.42	349	9	0	1	349	1	349	0	699
4	A105_04071T0	Z519_03347T0	97.42	388	10	0	1	388	1	388	0	771
1	A105_04269T0	Z519_03546T0	97.42	1203	31	0	1	1203	1	1203	0	2296
4	A105_04852T0	Z519_02676T0	97.42	504	13	0	1	504	1	504	0	1023
3	A105_07205T0	Z519_06295T0	97.42	388	10	0	1	388	1	388	0	767
1	A105_08077T0	Z519_04323T0	97.42	194	5	0	1	194	1	194	4.00E-113	323
63	A105_10230T0	Z519_10897T0	97.42	233	6	0	1	233	1	233	1.00E-168	467
1	A105_11735T0	Z519_02945T0	97.42	271	7	0	107	377	1	271	6.00E-177	496
5	A105_13297T0	Z519_05035T0	97.42	233	6	0	1	233	1	233	7.00E-170	471
1	A105_00650T0	Z519_00649T0	97.43	272	7	0	1	272	1	272	0	551
3	A105_00952T0	Z519_00886T0	97.43	311	8	0	1	311	1	311	0	629
18	A105_01196T0	Z519_08463T0	97.43	583	15	0	135	717	402	984	0	1189
3	A105_03676T0	Z519_02995T0	97.43	505	11	2	1	505	1	503	0	966
1	A105_03745T0	Z519_03067T0	97.43	428	11	0	1	428	51	478	0	843
1	A105_04073T0	Z519_03349T0	97.43	583	15	0	1	583	1	583	0	1145
2	A105_04246T0	Z519_03524T0	97.43	583	15	0	1	583	58	640	0	1142
5	A105_04952T0	Z519_02776T0	97.43	661	17	0	1	661	1	661	0	1210
20	A105_05860T0	Z519_04874T0	97.43	584	15	0	1	584	1	584	0	1113
3	A105_09831T0	Z519_10386T0	97.43	311	8	0	1	311	1	311	0	632
153	A105_10126T0	Z519_04276T0	97.43	506	13	0	1	506	1	506	0	1020
172	A105_10786T0	Z519_12280T0	97.43	272	7	0	1	272	1	272	0	547
2	A105_13094T0	Z519_11224T0	97.43	661	17	0	1	661	1	661	0	1246
1	A105_00963T0	Z519_00900T0	97.44	273	6	1	1	273	1	272	5.00E-157	442
1	A105_01293T0	Z519_08558T0	97.44	1717	44	0	1	1717	1	1717	0	3228
1	A105_01295T0	Z519_08560T0	97.44	391	10	0	1	391	1	391	0	633
6	A105_01727T0	Z519_01710T0	97.44	117	3	0	1	117	1	117	6.00E-80	233
2	A105_01952T0	Z519_01507T0	97.44	429	11	0	1	429	1	429	0	872
1	A105_02630T0	Z519_07159T0	97.44	117	3	0	1	117	1	117	2.00E-77	227
1	A105_02830T0	Z519_07361T0	97.44	313	8	0	1	313	1	313	0	604
48	A105_04227T0	Z519_03507T0	97.44	1174	26	1	1	1170	1	1174	0	2298
15	A105_04559T0	Z519_02387T0	97.44	273	7	0	1	273	1	273	4.00E-169	491
1	A105_05353T0	Z519_08226T0	97.44	352	9	0	1	352	1	352	0	664

1	A105_06733T0	Z519_06776T0	97.44	273	7	0	1	273	1	273	0	541
10	A105_08635T0	Z519_04023T0	97.44	351	9	0	1	351	1	351	0	670
21	A105_09588T0	Z519_01010T0	97.44	1133	28	1	1	1133	1	1132	0	2244
25	A105_10534T0	Z519_12610T0	97.44	1133	29	0	1	1133	1	1133	0	2295
1	A105_10555T0	Z519_12588T0	97.44	78	2	0	1	78	111	188	1.00E-39	131
136	A105_11124T0	Z519_08952T0	97.44	547	14	0	1	547	1	547	0	1088
6	A105_11407T0	Z519_02052T0	97.44	391	10	0	1	391	1	391	0	765
29	A105_00380T0	Z519_00383T0	97.45	822	21	0	1	822	1	822	0	1545
1	A105_00730T0	Z519_00722T0	97.45	275	7	0	1	275	1	275	0	564
2	A105_01359T0	Z519_11909T0	97.45	510	13	0	1	510	1	510	0	1014
103	A105_02438T0	Z519_06970T0	97.45	275	7	0	7	281	8	282	0	556
21	A105_02981T0	Z519_12048T0	97.45	274	6	1	1	274	1	273	0	555
1	A105_05417T0	Z519_08292T0	97.45	275	7	0	1	275	1	275	0	553
1	A105_05511T0	Z519_03625T0	97.45	235	6	0	1	235	1	235	1.00E-170	473
4	A105_09720T0	Z519_10488T0	97.45	509	13	0	1	509	1	509	0	1035
7	A105_09744T0	Z519_10477T0	97.45	1490	38	0	1	1490	1	1490	0	2944
1	A105_09878T0	Z519_10340T0	97.45	235	2	2	1	232	1	234	3.00E-164	456
5	A105_09897T0	Z519_10320T0	97.45	470	12	0	1	470	1	470	0	953
1	A105_11247T0	Z519_08830T0	97.45	824	21	0	1	824	1	824	0	1591
1	A105_00023T0	Z519_00022T0	97.46	945	24	0	1	945	1	945	0	1907
4	A105_02041T0	Z519_01415T0	97.46	1690	41	1	1	1688	1	1690	0	3286
6	A105_03378T0	Z519_10199T0	97.46	394	10	0	1	394	1	394	0	801
9	A105_04603T0	Z519_02431T0	97.46	473	12	0	1	473	1	473	0	959
4	A105_04774T0	Z519_02600T0	97.46	354	9	0	7	360	1	354	0	736
90	A105_09462T0	Z519_01124T0	97.46	512	13	0	1	512	1	512	0	971
2	A105_11462T0	Z519_08745T0	97.46	197	5	0	1	197	1	197	3.00E-134	377
35	A105_12753T0	Z519_10811T0	97.46	1888	48	0	13	1900	57	1944	0	3768
3	A105_00657T0	Z519_00655T0	97.47	396	9	1	1	396	35	429	0	805
64	A105_01688T0	Z519_01731T0	97.47	554	14	0	1	554	1	554	0	1099
15	A105_02561T0	Z519_07091T0	97.47	198	5	0	1	198	1	198	9.00E-144	402
2	A105_02863T0	Z519_07394T0	97.47	948	24	0	1	948	1	948	0	1836
10	A105_07439T0	Z519_06009T0	97.47	633	16	0	1	633	688	1320	0	1293
4	A105_08463T0	Z519_05589T0	97.47	711	18	0	1	711	1	711	0	1395
3	A105_10097T0	Z519_10287T0	97.47	158	4	0	1	158	1	158	7.00E-112	317
10	A105_10257T0	Z519_10922T0	97.47	750	19	0	21	770	21	770	0	1517

1	A105_10303T0	Z519_10968T0	97.47	632	16	0	1	632	1	632	0	1288
14	A105_11164T0	Z519_08912T0	97.47	474	12	0	1	474	1	474	0	909
1	A105_11990T0	Z519_05742T0	97.47	592	15	0	1	592	1	592	0	1164
1	A105_12788T0	Z519_12799T0	97.47	831	21	0	1	831	1	831	0	1684
1	A105_12843T0	Z519_07448T0	97.47	158	4	0	1	158	1	158	2.00E-111	317
15	A105_01110T0	Z519_08384T0	97.48	833	21	0	1	833	1	833	0	1640
90	A105_01581T0	Z519_01826T0	97.48	515	13	0	1	515	1	515	0	1005
66	A105_01780T0	Z519_01685T0	97.48	556	14	0	1	556	1	556	0	1125
4	A105_02284T0	Z519_11692T0	97.48	516	13	0	1	516	1	516	0	1037
101	A105_02976T0	Z519_12053T0	97.48	596	15	0	1	596	1	596	0	1224
5	A105_03054T0	Z519_11983T0	97.48	477	12	0	1	477	1	477	0	964
4	A105_03175T0	Z519_10024T0	97.48	556	9	1	1	551	1	556	0	1113
146	A105_03720T0	Z519_03040T0	97.48	515	13	0	1	515	1	515	0	1050
1	A105_03776T0	Z519_03098T0	97.48	238	6	0	1	238	1	238	8.00E-154	430
1	A105_06696T0	Z519_08973T0	97.48	635	15	1	1	635	1	634	0	1279
87	A105_07818T0	Z519_07633T0	97.48	516	13	0	1	516	1	516	0	1017
1	A105_07957T0	Z519_07798T0	97.48	119	3	0	1	119	1	119	3.00E-69	206
10	A105_08298T0	Z519_09515T0	97.48	159	4	0	134	292	1	159	8.00E-111	320
4	A105_08491T0	Z519_05560T0	97.48	516	13	0	1	516	1	516	0	976
1	A105_08778T0	Z519_03878T0	97.48	913	23	0	1	913	1	913	0	1839
32	A105_09437T0	Z519_01149T0	97.48	357	9	0	1	357	1	357	0	711
9	A105_11398T0	Z519_02061T0	97.48	595	14	1	17	611	57	650	0	1189
140	A105_12504T0	Z519_02838T0	97.48	556	14	0	1	556	94	649	0	1112
118	A105_12540T0	Z519_02871T0	97.48	515	13	0	1	515	1	515	0	1052
24	A105_13002T0	Z519_04417T0	97.48	278	7	0	1	278	1	278	0	515
30	A105_13354T0	Z519_09306T0	97.48	318	8	0	1	318	1	318	0	641
163	A105_00245T0	Z519_00244T0	97.49	517	13	0	1	517	27	543	0	1044
30	A105_02668T0	Z519_07200T0	97.49	319	8	0	1	319	1	319	0	612
22	A105_03432T0	Z519_10254T0	97.49	837	21	0	1	837	1	837	0	1531
1	A105_04452T0	Z519_02284T0	97.49	716	15	2	1	713	1	716	0	1021
1	A105_05929T0	Z519_04805T0	97.49	518	13	0	1	518	1	518	0	977
14	A105_08569T0	Z519_04074T0	97.49	2029	51	0	1	2029	1	2029	0	4117
27	A105_08998T0	Z519_05103T0	97.49	478	12	0	1	478	1	478	0	956
3	A105_09203T0	Z519_05317T0	97.49	1037	26	0	1	1037	1	1037	0	1939
157	A105_09241T0	Z519_05351T0	97.49	517	13	0	1	517	1	517	0	1001

3	A105_09353T0	Z519_01215T0	97.49	438	11	0	1	438	1	438	0	860
1	A105_09484T0	Z519_01099T0	97.49	438	11	0	1	438	1	438	0	869
5	A105_10320T0	Z519_10985T0	97.49	319	8	0	1	319	1	319	0	632
6	A105_10346T0	Z519_11017T0	97.49	479	12	0	1	479	1	479	0	954
24	A105_11340T0	Z519_02119T0	97.49	878	19	1	1	878	1	875	0	1738
3	A105_11353T0	Z519_02106T0	97.49	279	7	0	1	279	1	279	0	569
18	A105_12596T0	Z519_05448T0	97.49	279	7	0	1	279	82	360	0	564
7	A105_00107T0	Z519_00108T0	97.5	240	6	0	25	264	104	343	2.00E-134	386
1	A105_03530T0	Z519_09652T0	97.5	80	2	0	1	80	389	468	1.00E-50	166
2	A105_03624T0	Z519_09752T0	97.5	320	8	0	1	320	1	320	0	642
1	A105_03952T0	Z519_03251T0	97.5	680	17	0	1	680	1	680	0	1327
9	A105_04666T0	Z519_02495T0	97.5	480	12	0	1	480	1	480	0	934
1	A105_05043T0	Z519_07934T0	97.5	760	19	0	1	760	1	760	0	1443
1	A105_05448T0	Z519_08325T0	97.5	280	7	0	1	280	69	348	0	525
96	A105_06370T0	Z519_10670T0	97.5	360	9	0	1	360	2	361	0	728
8	A105_07391T0	Z519_05964T0	97.5	1079	27	0	25	1103	25	1103	0	2100
3	A105_07450T0	Z519_06018T0	97.5	400	10	0	18	417	5	404	0	801
2	A105_07916T0	Z519_07753T0	97.5	601	14	1	1	601	1	600	0	1174
5	A105_08400T0	Z519_05644T0	97.5	200	5	0	5	204	184	383	9.00E-141	412
48	A105_08521T0	Z519_05530T0	97.5	641	16	0	1	641	1	641	0	1295
1	A105_09706T0	Z519_10501T0	97.5	200	5	0	11	210	11	210	5.00E-139	390
1	A105_09799T0	Z519_10421T0	97.5	80	2	0	1	80	1	80	7.00E-53	161
19	A105_10293T0	Z519_10959T0	97.5	320	7	1	1	320	1	319	0	644
22	A105_10511T0	Z519_12632T0	97.5	599	15	0	1	599	1	599	0	1199
28	A105_10550T0	Z519_12592T0	97.5	1198	30	0	1	1198	1	1198	0	2360
8	A105_10672T0	Z519_09859T0	97.5	400	10	0	1	400	1	400	0	733
4	A105_11825T0	Z519_01932T0	97.5	1159	27	1	1	1159	1	1157	0	2283
3	A105_12482T0	Z519_02816T0	97.5	641	16	0	1	641	1	641	0	1307
4	A105_01425T0	Z519_11843T0	97.51	321	8	0	20	340	15	335	0	639
1	A105_02175T0	Z519_01303T0	97.51	362	9	0	1	362	1	362	0	713
11	A105_02239T0	Z519_11740T0	97.51	724	18	0	1	724	1	724	0	1481
6	A105_02467T0	Z519_06999T0	97.51	723	16	1	1	721	1	723	0	1420
3	A105_03197T0	Z519_10048T0	97.51	763	18	1	1	763	1	762	0	1451
35	A105_03686T0	Z519_03005T0	97.51	884	20	1	1	884	1	882	0	1757
1	A105_04136T0	Z519_03416T0	97.51	281	7	0	1	281	1	281	1.00E-173	486

1	A105_04200T0	Z519_03479T0	97.51	804	20	0	1	804	1	804	0	1632
1	A105_06279T0	Z519_10743T0	97.51	361	9	0	1	361	1	361	0	729
128	A105_06851T0	Z519_06652T0	97.51	523	13	0	1	523	1	523	0	1070
4	A105_07073T0	Z519_06428T0	97.51	402	10	0	76	477	63	464	0	792
2	A105_08024T0	Z519_07861T0	97.51	723	18	0	1	723	1	723	0	1442
1	A105_08076T0	Z519_04324T0	97.51	321	8	0	1	321	1	321	0	608
55	A105_08171T0	Z519_09395T0	97.51	361	9	0	1	361	1	361	0	720
76	A105_09742T0	Z519_10479T0	97.51	1647	41	0	1	1647	1	1647	0	3085
1	A105_09943T0	Z519_04204T0	97.51	281	7	0	1	281	1	281	0	567
21	A105_11081T0	Z519_06881T0	97.51	321	8	0	1	321	1	321	0	647
1	A105_11108T0	Z519_06909T0	97.51	481	11	1	1	480	1	481	0	926
33	A105_11682T0	Z519_08613T0	97.51	563	14	0	64	626	1	563	0	1139
36	A105_11683T0	Z519_08612T0	97.51	523	13	0	1	523	1	523	0	1013
84	A105_11936T0	Z519_02037T0	97.51	562	14	0	1	562	1	562	0	1048
31	A105_11944T0	Z519_05789T0	97.51	482	12	0	1	482	1	482	0	935
5	A105_13027T0	Z519_04444T0	97.51	723	17	1	1	722	1	723	0	1395
2	A105_00518T0	Z519_00525T0	97.52	322	8	0	1	322	1	322	0	649
6	A105_03539T0	Z519_09661T0	97.52	444	11	0	1	444	1	444	0	907
1	A105_06602T0	Z519_09062T0	97.52	323	8	0	1	323	1	323	0	600
15	A105_06962T0	Z519_06534T0	97.52	644	15	1	1	644	1	643	0	1251
1	A105_07130T0	Z519_06371T0	97.52	323	8	0	1	323	1	323	0	651
59	A105_07140T0	Z519_06361T0	97.52	363	9	0	1	363	1	363	0	705
1	A105_08354T0	Z519_09568T0	97.52	161	4	0	1	161	174	334	2.00E-111	325
2	A105_08511T0	Z519_05540T0	97.52	161	4	0	1	161	66	226	5.00E-114	325
2	A105_08785T0	Z519_03872T0	97.52	161	4	0	1	161	27	187	2.00E-117	332
4	A105_09778T0	Z519_10442T0	97.52	929	20	2	1	926	1	929	0	1852
2	A105_11660T0	Z519_08638T0	97.52	484	12	0	1	484	121	604	0	973
2	A105_11739T0	Z519_02941T0	97.52	121	3	0	1	121	1	121	1.00E-64	194
17	A105_12478T0	Z519_12641T0	97.52	766	18	1	85	850	1	765	0	1387
2	A105_00338T0	Z519_00343T0	97.53	162	4	0	1	162	1	162	3.00E-115	326
11	A105_01368T0	Z519_11901T0	97.53	324	8	0	1	324	1	324	0	655
14	A105_01652T0	Z519_01764T0	97.53	324	8	0	14	337	15	338	0	648
3	A105_01704T0	Z519_01718T0	97.53	365	9	0	1	365	1	365	0	706
1	A105_02380T0	Z519_11591T0	97.53	445	11	0	15	459	15	459	0	868
30	A105_02551T0	Z519_07082T0	97.53	608	15	0	1	608	1	608	0	1244

53	A105_03846T0	Z519_03164T0	97.53	810	18	1	1	810	1	808	0	1540
4	A105_04847T0	Z519_02671T0	97.53	608	13	1	1	606	1	608	0	1182
100	A105_06102T0	Z519_04635T0	97.53	566	14	0	1	566	1	566	0	1110
162	A105_06326T0	Z519_10699T0	97.53	283	7	0	1	283	1	283	0	535
4	A105_06620T0	Z519_09045T0	97.53	405	10	0	1	405	1	405	0	827
1	A105_07083T0	Z519_06417T0	97.53	770	19	0	1	770	1	770	0	1556
19	A105_07792T0	Z519_07607T0	97.53	283	7	0	1	283	1	283	0	563
84	A105_10390T0	Z519_11265T0	97.53	527	13	0	1	527	51	577	0	1057
7	A105_10928T0	Z519_11467T0	97.53	566	14	0	1	566	1	566	0	1141
60	A105_11106T0	Z519_06907T0	97.53	566	14	0	1	566	1	566	0	1145
7	A105_11391T0	Z519_02066T0	97.53	1013	25	0	1	1013	1	1013	0	2033
32	A105_01059T0	Z519_00981T0	97.54	366	9	0	1	366	1	366	0	744
101	A105_01260T0	Z519_08526T0	97.54	568	14	0	1	568	1	568	0	1142
1	A105_01412T0	Z519_11855T0	97.54	651	14	1	1	649	1	651	0	1306
1	A105_01622T0	Z519_01795T0	97.54	407	10	0	1	407	1	407	0	823
5	A105_03727T0	Z519_03047T0	97.54	325	8	0	1	325	1	325	0	609
2	A105_05033T0	Z519_07923T0	97.54	407	10	0	1	407	1	407	0	699
14	A105_05239T0	Z519_08112T0	97.54	569	14	0	1	569	1	569	0	1149
1	A105_05437T0	Z519_08314T0	97.54	122	3	0	1	122	1	122	9.00E-65	195
3	A105_05825T0	Z519_04907T0	97.54	609	9	1	1	609	1	603	0	1194
124	A105_06041T0	Z519_04698T0	97.54	488	12	0	13	500	13	500	0	990
3	A105_07065T0	Z519_06435T0	97.54	244	6	0	1	244	1	244	3.00E-173	480
2	A105_07615T0	Z519_06178T0	97.54	447	11	0	1	447	1	447	0	837
16	A105_08209T0	Z519_09431T0	97.54	366	9	0	3	368	2	367	0	676
1	A105_09424T0	Z519_01162T0	97.54	284	7	0	1	284	1	284	0	566
78	A105_11123T0	Z519_08953T0	97.54	610	15	0	1	610	1	610	0	1201
3	A105_11242T0	Z519_08835T0	97.54	244	6	0	1	244	1	244	5.00E-175	484
105	A105_11543T0	Z519_11553T0	97.54	568	14	0	1	568	1	568	0	1147
1	A105_11970T0	Z519_05762T0	97.54	487	12	0	1	487	1	487	0	866
2	A105_00109T0	Z519_00110T0	97.55	571	14	0	1	571	1	571	0	1108
1	A105_00540T0	Z519_00550T0	97.55	163	3	1	1	163	1	162	4.00E-81	240
5	A105_03941T0	Z519_03238T0	97.55	2534	62	0	11	2544	11	2544	0	5116
1	A105_04657T0	Z519_02483T0	97.55	408	10	0	1	408	1	408	0	768
5	A105_05414T0	Z519_08289T0	97.55	531	12	1	1	531	1	530	0	1055
1	A105_05858T0	Z519_04876T0	97.55	286	7	0	1	286	1	286	0	569

3	A105_05982T0	Z519_04754T0	97.55	286	7	0	1	286	1	286	0	562
3	A105_07488T0	Z519_06054T0	97.55	817	20	0	1	817	1	817	0	1658
22	A105_07519T0	Z519_06085T0	97.55	572	14	0	1	572	699	1270	0	1151
1	A105_08509T0	Z519_05542T0	97.55	163	4	0	1	163	1	163	1.00E-99	287
12	A105_09099T0	Z519_05209T0	97.55	572	12	2	1	572	84	653	0	1098
1	A105_10461T0	Z519_11338T0	97.55	2122	51	1	1	2121	1	2122	0	4103
1	A105_10689T0	Z519_09875T0	97.55	245	6	0	1	245	1	245	2.00E-177	491
57	A105_10745T0	Z519_09933T0	97.55	571	14	0	1	571	1	571	0	1129
159	A105_10808T0	Z519_12260T0	97.55	531	13	0	1	531	1	531	0	1063
11	A105_11493T0	Z519_08771T0	97.55	286	7	0	1	286	1	286	0	571
2	A105_00322T0	Z519_00330T0	97.56	737	18	0	1	737	1	737	0	1408
2	A105_00654T0	Z519_00653T0	97.56	615	15	0	1	615	1	615	0	1247
1	A105_02740T0	Z519_07273T0	97.56	287	7	0	1	287	1	287	0	576
1	A105_02811T0	Z519_07341T0	97.56	821	17	2	1	821	1	818	0	925
70	A105_04230T0	Z519_03510T0	97.56	573	14	0	1	573	1	573	0	1144
152	A105_04773T0	Z519_02599T0	97.56	492	12	0	1	492	1	492	0	989
90	A105_04942T0	Z519_02766T0	97.56	491	12	0	1	491	14	504	0	984
1	A105_09702T0	Z519_10505T0	97.56	533	13	0	1	533	1	533	0	1016
1	A105_10469T0	Z519_11345T0	97.56	451	11	0	1	451	1	451	0	923
23	A105_10667T0	Z519_09854T0	97.56	328	8	0	1	328	1	328	0	668
136	A105_12026T0	Z519_05703T0	97.56	533	13	0	1	533	1	533	0	1080
39	A105_12844T0	Z519_07449T0	97.56	574	14	0	1	574	1	574	0	1103
40	A105_00073T0	Z519_00072T0	97.57	1438	32	2	1	1437	1	1436	0	2715
1	A105_00313T0	Z519_00322T0	97.57	1030	22	1	1	1027	1	1030	0	1842
6	A105_00841T0	Z519_00787T0	97.57	618	15	0	1	618	1	618	0	1256
13	A105_02123T0	Z519_01355T0	97.57	577	14	0	1	577	1	577	0	1152
32	A105_02413T0	Z519_06941T0	97.57	329	8	0	1	329	1	329	0	649
2	A105_03101T0	Z519_11937T0	97.57	371	9	0	1	371	1	371	0	705
2	A105_04289T0	Z519_03570T0	97.57	329	8	0	1	329	19	347	0	664
2	A105_04579T0	Z519_02407T0	97.57	536	13	0	1	536	1	536	0	1019
10	A105_05028T0	Z519_07918T0	97.57	699	17	0	1	699	1	699	0	1430
153	A105_05687T0	Z519_11162T0	97.57	535	13	0	1	535	1	535	0	1078
1	A105_06701T0	Z519_08968T0	97.57	2014	47	1	1	2014	1	2012	0	4016
1	A105_08658T0	Z519_03998T0	97.57	1233	30	0	1	1233	1	1233	0	2409
6	A105_09285T0	Z519_01280T0	97.57	1603	39	0	1	1603	1	1603	0	3227

5	A105_12611T0	Z519_05429T0	97.57	659	16	0	1	659	1	659	0	1276
110	A105_00229T0	Z519_00227T0	97.58	538	13	0	1	538	1	538	0	1095
6	A105_00253T0	Z519_00253T0	97.58	702	17	0	11	712	97	798	0	1366
22	A105_00578T0	Z519_00589T0	97.58	620	15	0	1	620	1	620	0	1259
63	A105_00960T0	Z519_00894T0	97.58	868	21	0	1	868	1	868	0	1740
1	A105_01487T0	Z519_11782T0	97.58	661	16	0	1	661	26	686	0	1269
1	A105_01632T0	Z519_01785T0	97.58	1279	31	0	1	1279	1	1279	0	2557
15	A105_02258T0	Z519_11721T0	97.58	372	9	0	1	372	1	372	0	746
3	A105_03376T0	Z519_10197T0	97.58	621	15	0	1	621	1	621	0	1234
29	A105_03805T0	Z519_03126T0	97.58	413	10	0	1	413	1	413	0	821
1	A105_04405T0	Z519_02236T0	97.58	124	3	0	1	124	1	124	3.00E-87	252
162	A105_05415T0	Z519_08290T0	97.58	248	6	0	1	248	1	248	5.00E-179	495
22	A105_05644T0	Z519_11203T0	97.58	867	21	0	1	867	1	867	0	1756
4	A105_06001T0	Z519_04735T0	97.58	869	21	0	1	869	38	906	0	1693
1	A105_07865T0	Z519_07696T0	97.58	538	13	0	1	538	1	538	0	1049
155	A105_09103T0	Z519_05213T0	97.58	495	12	0	1	495	1	495	0	990
3	A105_09899T0	Z519_10318T0	97.58	330	8	0	1	330	1	330	0	660
1	A105_10143T0	Z519_04294T0	97.58	745	18	0	1	745	1	745	0	1511
76	A105_10545T0	Z519_12598T0	97.58	538	13	0	1	538	1	538	0	1098
94	A105_12989T0	Z519_04406T0	97.58	619	15	0	1	619	1	619	0	1214
88	A105_02541T0	Z519_07071T0	97.59	539	13	0	1	539	1	539	0	1031
1	A105_02616T0	Z519_07144T0	97.59	2120	51	0	1	2120	1	2120	0	4293
3	A105_03087T0	Z519_11951T0	97.59	623	15	0	1	623	9	631	0	1255
1	A105_03942T0	Z519_03239T0	97.59	580	14	0	1	580	1	580	0	1136
40	A105_06167T0	Z519_04573T0	97.59	498	12	0	1	498	1	498	0	999
1	A105_06799T0	Z519_06704T0	97.59	540	12	1	1	540	5	543	0	1088
5	A105_08306T0	Z519_09522T0	97.59	706	15	1	20	725	88	791	0	1326
8	A105_08448T0	Z519_05604T0	97.59	457	11	0	1	457	1	457	0	931
3	A105_08671T0	Z519_03988T0	97.59	706	16	1	1	706	1	705	0	1346
92	A105_08896T0	Z519_03757T0	97.59	497	12	0	1	497	1	497	0	983
157	A105_11279T0	Z519_08799T0	97.59	291	7	0	1	291	1	291	0	581
1	A105_11664T0	Z519_08632T0	97.59	831	20	0	1	831	1	831	0	1656
168	A105_11697T0	Z519_08597T0	97.59	291	7	0	1	291	1	291	0	572
8	A105_12234T0	Z519_04518T0	97.59	249	6	0	1	249	1	249	0	508
102	A105_13121T0	Z519_11247T0	97.59	580	14	0	1	580	1	580	0	1191

1	A105_00855T0	Z519_00803T0	97.6	292	7	0	1	292	1	292	0	580
7	A105_03953T0	Z519_03252T0	97.6	584	14	0	1	584	1	584	0	1165
6	A105_05998T0	Z519_04738T0	97.6	835	20	0	1	835	1	835	0	1718
74	A105_08136T0	Z519_09359T0	97.6	1123	27	0	1	1123	1	1123	0	2199
115	A105_09956T0	Z519_04191T0	97.6	626	15	0	1	626	1	626	0	1249
3	A105_11022T0	Z519_06821T0	97.6	459	11	0	1	459	1	459	0	901
1	A105_12361T0	Z519_12445T0	97.6	167	4	0	1	167	1	167	1.00E-118	335
25	A105_13217T0	Z519_12502T0	97.6	292	7	0	1	292	1	292	0	587
2	A105_00100T0	Z519_00100T0	97.61	502	12	0	1	502	1	502	0	967
49	A105_02742T0	Z519_07275T0	97.61	543	13	0	1	543	1	543	0	1075
7	A105_05131T0	Z519_08021T0	97.61	461	11	0	1	461	1	461	0	939
3	A105_05235T0	Z519_08108T0	97.61	418	10	0	1	418	1	418	0	846
85	A105_05691T0	Z519_11158T0	97.61	503	12	0	1	503	1	503	0	974
1	A105_05781T0	Z519_04951T0	97.61	419	9	1	1	418	1	419	0	821
35	A105_07753T0	Z519_07567T0	97.61	1422	34	0	1	1422	1	1422	0	2887
42	A105_08285T0	Z519_09506T0	97.61	461	11	0	19	479	1	461	0	868
2	A105_09499T0	Z519_01085T0	97.61	209	5	0	1	209	1	209	6.00E-151	421
9	A105_10871T0	Z519_11409T0	97.61	837	20	0	77	913	1	837	0	1592
40	A105_11829T0	Z519_01935T0	97.61	543	13	0	1	543	1	543	0	996
9	A105_12264T0	Z519_04490T0	97.61	335	8	0	1	335	1	335	0	670
24	A105_13298T0	Z519_05034T0	97.61	836	20	0	1	836	1	836	0	1655
1	A105_00169T0	Z519_00169T0	97.62	294	7	0	1	294	1	294	0	515
30	A105_00265T0	Z519_00274T0	97.62	336	8	0	1	336	1	336	0	664
47	A105_00668T0	Z519_00663T0	97.62	715	17	0	1	715	1	715	0	1439
2	A105_01435T0	Z519_11833T0	97.62	336	8	0	1	336	1	336	0	686
157	A105_03179T0	Z519_10028T0	97.62	547	13	0	1	547	1	547	0	1086
13	A105_03661T0	Z519_02982T0	97.62	421	10	0	1	421	1	421	0	840
6	A105_04560T0	Z519_02387T0	97.62	504	11	1	1	504	311	813	0	1015
1	A105_04972T0	Z519_02796T0	97.62	84	2	0	1	84	1	84	3.00E-44	140
25	A105_07679T0	Z519_06244T0	97.62	462	11	0	1	462	1	462	0	910
3	A105_08254T0	Z519_09476T0	97.62	210	5	0	1	210	1	210	1.00E-152	425
154	A105_08605T0	Z519_04044T0	97.62	504	12	0	1	504	1	504	0	995
66	A105_09082T0	Z519_05193T0	97.62	589	13	1	1	589	1	588	0	1127
147	A105_11112T0	Z519_06914T0	97.62	546	13	0	1	546	1	546	0	1115
6	A105_11789T0	Z519_02892T0	97.62	126	3	0	48	173	10	135	1.00E-86	253

4	A105_12010T0	Z519_05720T0	97.62	673	16	0	1	673	1	673	0	1355
1	A105_12085T0	Z519_12345T0	97.62	629	15	0	1	629	1	629	0	1231
1	A105_13111T0	Z519_11237T0	97.62	546	13	0	1	546	67	612	0	1029
1	A105_00117T0	Z519_00118T0	97.63	380	9	0	1	380	1	380	0	773
5	A105_00677T0	Z519_00672T0	97.63	295	7	0	1	295	1	295	0	607
122	A105_01549T0	Z519_01870T0	97.63	295	7	0	1	295	1	295	0	573
157	A105_01566T0	Z519_01855T0	97.63	506	12	0	1	506	1	506	0	1006
52	A105_01725T0	Z519_01711T0	97.63	760	18	0	1	760	1	760	0	1540
3	A105_02430T0	Z519_06960T0	97.63	632	15	0	1	632	1	632	0	1248
1	A105_04390T0	Z519_02221T0	97.63	801	19	0	1	801	1	801	0	1612
85	A105_05846T0	Z519_04887T0	97.63	591	14	0	1	591	1	591	0	1196
22	A105_06443T0	Z519_10598T0	97.63	590	14	0	1	590	1	590	0	1191
153	A105_07098T0	Z519_06402T0	97.63	507	10	1	1	505	1	507	0	1009
83	A105_08026T0	Z519_07863T0	97.63	549	13	0	4	552	3	551	0	1104
145	A105_09286T0	Z519_01279T0	97.63	548	13	0	1	548	1	548	0	1084
51	A105_10959T0	Z519_11496T0	97.63	633	15	0	1	633	78	710	0	1284
1	A105_12501T0	Z519_02835T0	97.63	379	9	0	1	379	1	379	0	707
82	A105_01069T0	Z519_00991T0	97.64	594	14	0	12	605	1	594	0	1192
1	A105_01387T0	Z519_11882T0	97.64	424	10	0	1	424	1	424	0	763
1	A105_02396T0	Z519_06925T0	97.64	296	7	0	1	296	1	296	0	602
4	A105_02626T0	Z519_07153T0	97.64	382	9	0	1	382	1	382	0	739
1	A105_02709T0	Z519_07246T0	97.64	594	14	0	1	594	1	594	0	1187
1	A105_03034T0	Z519_12003T0	97.64	593	14	0	1	593	1	593	0	1159
1	A105_03058T0	Z519_11980T0	97.64	1227	29	0	1	1227	1	1227	0	2428
1	A105_03257T0	Z519_10106T0	97.64	1271	30	0	1	1271	1	1271	0	2566
48	A105_03513T0	Z519_09637T0	97.64	509	12	0	115	623	1	509	0	1036
1	A105_04150T0	Z519_03430T0	97.64	424	10	0	1	424	1	424	0	851
4	A105_07054T0	Z519_06448T0	97.64	508	12	0	1	508	1	508	0	994
59	A105_08907T0	Z519_03745T0	97.64	552	13	0	1	552	1	552	0	1127
39	A105_09264T0	Z519_05371T0	97.64	550	13	0	1	550	1	550	0	1076
20	A105_10213T0	Z519_10879T0	97.64	594	14	0	1	594	1	594	0	1202
4	A105_12987T0	Z519_04404T0	97.64	890	21	0	1	890	1	890	0	1800
20	A105_00478T0	Z519_00485T0	97.65	340	8	0	1	340	1	340	0	692
20	A105_01687T0	Z519_01732T0	97.65	383	9	0	1	383	1	383	0	787
2	A105_01822T0	Z519_01642T0	97.65	426	8	1	1	426	1	424	0	850

13	A105_01866T0	Z519_01599T0	97.65	383	9	0	1	383	1	383	0	765
3	A105_04790T0	Z519_02617T0	97.65	341	8	0	1	341	1	341	0	699
1	A105_05428T0	Z519_08303T0	97.65	425	10	0	1	425	1	425	0	857
129	A105_06476T0	Z519_09188T0	97.65	554	13	0	1	554	1	554	0	1125
1	A105_06734T0	Z519_06775T0	97.65	596	14	0	1	596	26	621	0	1118
110	A105_06948T0	Z519_06549T0	97.65	298	7	0	1	298	1	298	0	590
13	A105_07028T0	Z519_06473T0	97.65	425	10	0	1	425	1	425	0	852
73	A105_07044T0	Z519_06458T0	97.65	596	14	0	1	596	1	596	0	1154
1	A105_07774T0	Z519_07588T0	97.65	170	4	0	1	170	1	170	1.00E-119	338
4	A105_07783T0	Z519_07598T0	97.65	383	9	0	1	383	1	383	0	754
5	A105_09108T0	Z519_05218T0	97.65	213	5	0	1	213	149	361	2.00E-156	441
14	A105_09995T0	Z519_04173T0	97.65	341	8	0	1	341	1	341	0	694
1	A105_10115T0	Z519_04264T0	97.65	597	14	0	1	597	19	615	0	1134
6	A105_10135T0	Z519_04285T0	97.65	553	13	0	1	553	1	553	0	1102
2	A105_10295T0	Z519_10960T0	97.65	340	8	0	1	340	1	340	0	657
1	A105_10712T0	Z519_09900T0	97.65	170	4	0	1	170	1	170	2.00E-114	325
1	A105_11136T0	Z519_08939T0	97.65	170	4	0	1	170	1	170	8.00E-124	350
2	A105_12531T0	Z519_02862T0	97.65	85	2	0	7	91	148	232	2.00E-55	173
1	A105_13140T0	Z519_04382T0	97.65	298	6	1	1	297	1	298	0	593
2	A105_00321T0	Z519_00329T0	97.66	384	5	1	1	384	1	380	0	707
4	A105_01414T0	Z519_11854T0	97.66	642	15	0	18	659	100	741	0	1263
2	A105_01478T0	Z519_11789T0	97.66	256	6	0	1	256	1	256	0	523
10	A105_01873T0	Z519_01591T0	97.66	512	12	0	1	512	1	512	0	963
2	A105_02665T0	Z519_07197T0	97.66	299	7	0	1	299	1	299	0	589
1	A105_02985T0	Z519_12044T0	97.66	513	12	0	1	513	1	513	0	959
1	A105_03046T0	Z519_11991T0	97.66	384	9	0	1	384	1	384	0	717
62	A105_03095T0	Z519_11943T0	97.66	556	13	0	1	556	1	556	0	1129
1	A105_03770T0	Z519_03092T0	97.66	555	13	0	1	555	1	555	0	1016
1	A105_03968T0	Z519_03267T0	97.66	342	8	0	1	342	1	342	0	681
6	A105_05335T0	Z519_08209T0	97.66	385	9	0	1	385	1	385	0	784
1	A105_06775T0	Z519_06722T0	97.66	1540	35	1	1	1540	1	1539	0	2913
32	A105_07059T0	Z519_06441T0	97.66	1498	35	0	1	1498	1	1498	0	2984
1	A105_10040T0	Z519_04126T0	97.66	171	4	0	1	171	1	171	1.00E-119	338
1	A105_10868T0	Z519_11406T0	97.66	214	5	0	1	214	1	214	2.00E-147	412
3	A105_11341T0	Z519_02118T0	97.66	2687	63	0	1	2687	1	2687	0	5205

87	A105_11597T0	Z519_08697T0	97.66	555	10	1	1	552	1	555	0	1114
28	A105_11889T0	Z519_01992T0	97.66	512	12	0	1	512	1	512	0	1053
3	A105_12114T0	Z519_12374T0	97.66	342	8	0	1	342	1	342	0	649
46	A105_12162T0	Z519_09278T0	97.66	981	23	0	1	981	1	981	0	1886
1	A105_12494T0	Z519_02828T0	97.66	214	5	0	1	214	1	214	3.00E-155	432
3	A105_12888T0	Z519_07491T0	97.66	1452	34	0	1	1452	1	1452	0	2925
2	A105_13079T0	Z519_11214T0	97.66	513	12	0	1	513	1	513	0	1031
1	A105_00731T0	Z519_00723T0	97.67	1116	26	0	1	1116	1	1116	0	2219
7	A105_01019T0	Z519_00943T0	97.67	1158	11	1	1	1142	1	1158	0	2358
6	A105_01122T0	Z519_08395T0	97.67	559	13	0	1	559	1	559	0	1035
50	A105_01326T0	Z519_08590T0	97.67	729	17	0	1	729	1	729	0	1489
1	A105_02590T0	Z519_07120T0	97.67	731	17	0	1	731	1	731	0	1441
14	A105_02627T0	Z519_07154T0	97.67	472	11	0	1	472	1	472	0	931
16	A105_02661T0	Z519_07193T0	97.67	559	13	0	1	559	1	559	0	1082
1	A105_02956T0	Z519_12072T0	97.67	643	15	0	1	643	1	643	0	1234
22	A105_03345T0	Z519_10169T0	97.67	559	13	0	1	559	1	559	0	1137
34	A105_03577T0	Z519_09699T0	97.67	343	8	0	1	343	1	343	0	697
2	A105_03777T0	Z519_03099T0	97.67	129	3	0	1	129	1	129	2.00E-87	254
1	A105_04373T0	Z519_02200T0	97.67	129	3	0	1	129	1	129	4.00E-86	249
1	A105_04744T0	Z519_02574T0	97.67	814	19	0	1	814	1	814	0	1323
1	A105_05961T0	Z519_04774T0	97.67	215	5	0	6	220	54	268	3.00E-142	401
30	A105_05964T0	Z519_04771T0	97.67	343	8	0	1	343	1	343	0	699
88	A105_06427T0	Z519_10614T0	97.67	515	12	0	1	515	1	515	0	1010
7	A105_08454T0	Z519_05598T0	97.67	600	13	1	1	600	1	599	0	1179
1	A105_09246T0	Z519_05356T0	97.67	257	6	0	1	257	1	257	0	520
86	A105_10038T0	Z519_04128T0	97.67	515	12	0	1	515	1	515	0	1036
4	A105_11641T0	Z519_08657T0	97.67	215	5	0	1	215	1	215	3.00E-135	394
1	A105_11842T0	Z519_01948T0	97.67	86	2	0	1	86	1	86	1.00E-56	171
2	A105_12400T0	Z519_06276T0	97.67	515	12	0	1	515	1	515	0	1044
156	A105_12740T0	Z519_10799T0	97.67	429	10	0	1	429	120	548	0	858
39	A105_12860T0	Z519_07463T0	97.67	516	11	1	1	515	1	516	0	1018
4	A105_01180T0	Z519_08447T0	97.68	474	11	0	1	474	7	480	0	942
2	A105_01213T0	Z519_08480T0	97.68	259	6	0	1	259	1	259	0	524
3	A105_02246T0	Z519_11733T0	97.68	560	13	0	1	560	1	560	0	1134
1	A105_02257T0	Z519_11722T0	97.68	818	19	0	1	818	1	818	0	1662

12	A105_03461T0	Z519_09586T0	97.68	732	17	0	1	732	1	732	0	1439
1	A105_03627T0	Z519_09755T0	97.68	259	6	0	1	259	1	259	5.00E-178	493
58	A105_04358T0	Z519_02182T0	97.68	603	14	0	1	603	1	603	0	1172
5	A105_05114T0	Z519_08003T0	97.68	517	12	0	1	517	1	517	0	994
2	A105_05327T0	Z519_08201T0	97.68	388	9	0	1	388	1	388	0	783
177	A105_06078T0	Z519_04665T0	97.68	259	6	0	1	259	1	259	0	517
59	A105_08378T0	Z519_05666T0	97.68	431	10	0	1	431	1	431	0	849
23	A105_08472T0	Z519_05580T0	97.68	431	10	0	150	580	1	431	0	830
8	A105_09743T0	Z519_10478T0	97.68	560	13	0	1	560	1	560	0	1124
9	A105_10007T0	Z519_04160T0	97.68	561	13	0	1	561	1	561	0	1142
94	A105_10777T0	Z519_12288T0	97.68	603	14	0	1	603	1	603	0	1223
5	A105_11754T0	Z519_02926T0	97.68	1206	27	1	1	1206	1	1205	0	2209
46	A105_12481T0	Z519_02815T0	97.68	646	15	0	1	646	1	646	0	1280
10	A105_01811T0	Z519_01653T0	97.69	173	4	0	1	173	1	173	3.00E-125	352
7	A105_02641T0	Z519_07173T0	97.69	996	23	0	1	996	1	996	0	1826
2	A105_03139T0	Z519_09993T0	97.69	216	4	1	1	216	1	215	4.00E-148	416
3	A105_03511T0	Z519_09635T0	97.69	173	4	0	1	173	1	173	4.00E-123	347
46	A105_05380T0	Z519_08254T0	97.69	347	6	1	54	398	1	347	0	697
10	A105_05800T0	Z519_04933T0	97.69	303	7	0	1	303	1	303	0	608
27	A105_06724T0	Z519_06785T0	97.69	389	9	0	1	389	1	389	0	800
1	A105_09671T0	Z519_10535T0	97.69	951	22	0	1	951	1	951	0	1873
1	A105_10562T0	Z519_12582T0	97.69	562	13	0	1	562	58	619	0	1094
18	A105_10708T0	Z519_09894T0	97.69	562	13	0	1	562	1	562	0	1153
16	A105_10785T0	Z519_12281T0	97.69	346	8	0	1	346	1	346	0	697
7	A105_00446T0	Z519_00453T0	97.7	174	4	0	1	174	1	174	1.00E-125	354
3	A105_00658T0	Z519_00656T0	97.7	392	9	0	1	392	1	392	0	773
2	A105_01413T0	Z519_11854T0	97.7	87	2	0	1	87	1	87	3.00E-40	141
3	A105_02578T0	Z519_07108T0	97.7	217	5	0	1	217	1	217	2.00E-145	407
4	A105_02579T0	Z519_07109T0	97.7	566	13	0	1	566	1	566	0	1155
1	A105_03886T0	Z519_03201T0	97.7	522	12	0	1	522	1	522	0	1060
6	A105_04522T0	Z519_02349T0	97.7	304	7	0	1	304	1	304	0	594
4	A105_05959T0	Z519_04776T0	97.7	1394	32	0	1	1394	1	1394	0	2622
1	A105_05976T0	Z519_04758T0	97.7	217	5	0	4	220	35	251	1.00E-157	440
99	A105_06356T0	Z519_10683T0	97.7	565	13	0	1	565	1	565	0	1152
2	A105_06726T0	Z519_06783T0	97.7	304	7	0	1	304	1	304	0	583

2	A105_08208T0	Z519_09430T0	97.7	434	10	0	1	434	1	434	0	887
89	A105_08250T0	Z519_09471T0	97.7	522	12	0	1	522	1	522	0	1047
1	A105_08762T0	Z519_03895T0	97.7	217	5	0	1	217	1	217	2.00E-157	438
150	A105_09074T0	Z519_05185T0	97.7	479	5	1	37	515	37	509	0	978
1	A105_09379T0	Z519_01189T0	97.7	391	9	0	1	391	1	391	0	770
2	A105_12350T0	Z519_12435T0	97.7	521	12	0	1	521	142	662	0	988
1	A105_12554T0	Z519_05498T0	97.7	3050	70	0	1	3050	1	3050	0	5933
3	A105_12612T0	Z519_05428T0	97.7	174	4	0	14	187	14	187	2.00E-119	352
1	A105_00737T0	Z519_00730T0	97.71	829	19	0	1	829	1	829	0	1662
103	A105_01170T0	Z519_08438T0	97.71	568	13	0	1	568	1	568	0	1161
11	A105_01202T0	Z519_08469T0	97.71	350	8	0	1	350	1	350	0	689
12	A105_02826T0	Z519_07357T0	97.71	1660	38	0	1	1660	1	1660	0	3306
1	A105_04185T0	Z519_03464T0	97.71	350	8	0	1	350	1	350	0	706
20	A105_05214T0	Z519_08088T0	97.71	1049	24	0	1	1049	1	1049	0	2106
1	A105_05914T0	Z519_04820T0	97.71	218	5	0	1	218	1	218	8.00E-123	350
26	A105_06869T0	Z519_06631T0	97.71	830	17	1	1	828	1	830	0	1617
14	A105_06957T0	Z519_06539T0	97.71	306	7	0	11	316	12	317	0	597
1	A105_09930T0	Z519_04217T0	97.71	131	3	0	1	131	1	131	4.00E-89	261
1	A105_10219T0	Z519_10885T0	97.71	612	14	0	1	612	1	612	0	1206
5	A105_10751T0	Z519_09939T0	97.71	350	8	0	1	350	11	360	0	716
6	A105_11287T0	Z519_02153T0	97.71	1264	28	1	1	1264	1	1263	0	2524
2	A105_11874T0	Z519_01978T0	97.71	131	3	0	1	131	1	131	2.00E-81	238
2	A105_13387T0	Z519_12224T0	97.71	480	11	0	1	480	1	480	0	952
1	A105_02383T0	Z519_11588T0	97.72	483	11	0	1	483	1	483	0	938
59	A105_02596T0	Z519_07126T0	97.72	439	10	0	1	439	1	439	0	860
8	A105_02982T0	Z519_12047T0	97.72	1845	42	0	1	1845	1	1845	0	3561
3	A105_03264T0	Z519_10114T0	97.72	526	12	0	51	576	1	526	0	983
3	A105_05237T0	Z519_08110T0	97.72	395	9	0	1	395	1	395	0	801
5	A105_05475T0	Z519_08350T0	97.72	482	11	0	1	482	1	482	0	879
1	A105_05796T0	Z519_04937T0	97.72	307	7	0	1	307	1	307	0	613
1	A105_05797T0	Z519_04936T0	97.72	307	7	0	1	307	1	307	0	623
8	A105_06622T0	Z519_09043T0	97.72	307	7	0	1	307	1	307	0	618
102	A105_06855T0	Z519_06648T0	97.72	569	13	0	1	569	1	569	0	1136
5	A105_08206T0	Z519_09428T0	97.72	613	14	0	1	613	1	613	0	1189
2	A105_09382T0	Z519_01186T0	97.72	482	11	0	1	482	1	482	0	983

13	A105_09527T0	Z519_01060T0	97.72	263	6	0	1	263	1	263	0	528
103	A105_10080T0	Z519_04089T0	97.72	569	13	0	1	569	1	569	0	1172
13	A105_13235T0	Z519_12521T0	97.72	2241	51	0	1	2241	1	2241	0	4358
2	A105_00236T0	Z519_00235T0	97.73	220	5	0	1	220	1	220	8.00E-102	297
1	A105_00448T0	Z519_00455T0	97.73	88	2	0	1	88	69	156	3.00E-55	170
4	A105_00584T0	Z519_00594T0	97.73	706	14	1	1	704	1	706	0	1428
20	A105_00834T0	Z519_00780T0	97.73	572	13	0	1	572	1	572	0	1130
4	A105_01020T0	Z519_00944T0	97.73	440	10	0	1	440	1	440	0	889
1	A105_01215T0	Z519_08482T0	97.73	397	9	0	1	397	1	397	0	748
1	A105_01232T0	Z519_08499T0	97.73	132	3	0	1	132	1	132	3.00E-92	265
157	A105_02405T0	Z519_06933T0	97.73	529	12	0	1	529	1	529	0	1063
2	A105_02721T0	Z519_07258T0	97.73	396	9	0	1	396	40	435	0	802
9	A105_03300T0	Z519_10148T0	97.73	88	2	0	25	112	1	88	6.00E-60	181
101	A105_03713T0	Z519_03032T0	97.73	572	13	0	1	572	1	572	0	1172
2	A105_04041T0	Z519_03323T0	97.73	616	14	0	1	616	1	616	0	1247
153	A105_04249T0	Z519_03527T0	97.73	528	12	0	1	528	1	528	0	1061
3	A105_04272T0	Z519_03550T0	97.73	705	16	0	1	705	1	705	0	1337
3	A105_04394T0	Z519_02225T0	97.73	353	8	0	1	353	1	353	0	711
1	A105_05082T0	Z519_07972T0	97.73	750	17	0	1	750	1	750	0	1434
39	A105_05129T0	Z519_08018T0	97.73	837	19	0	1	837	1	837	0	1682
1	A105_05903T0	Z519_04831T0	97.73	44	1	0	1	44	1	44	6.00E-24	87
11	A105_07148T0	Z519_06353T0	97.73	836	13	2	1	836	1	830	0	1634
1	A105_07700T0	Z519_07522T0	97.73	88	2	0	66	153	1	88	3.00E-55	171
28	A105_08452T0	Z519_05600T0	97.73	353	8	0	1	353	1	353	0	716
22	A105_08799T0	Z519_03855T0	97.73	529	12	0	1	529	1	529	0	1049
198	A105_08955T0	Z519_05058T0	97.73	264	6	0	1	264	1	264	0	522
1	A105_10648T0	Z519_09836T0	97.73	616	14	0	1	616	1	616	0	1207
4	A105_10666T0	Z519_09853T0	97.73	397	9	0	1	397	1	397	0	732
6	A105_10722T0	Z519_09910T0	97.73	573	13	0	1	573	1	573	0	1162
89	A105_10944T0	Z519_11482T0	97.73	617	13	1	1	617	1	616	0	1230
4	A105_11659T0	Z519_08639T0	97.73	572	11	2	1	571	1	571	0	1061
41	A105_13138T0	Z519_04384T0	97.73	1497	27	1	1	1497	1	1490	0	2970
2	A105_13143T0	Z519_04379T0	97.73	352	8	0	1	352	1	352	0	720
17	A105_13446T0	Z519_12174T0	97.73	484	11	0	1	484	1	484	0	906
3	A105_00267T0	Z519_00276T0	97.74	1416	32	0	1	1416	1	1416	0	2807

1	A105_01433T0	Z519_11835T0	97.74	133	3	0	1	133	1	133	5.00E-88	254
12	A105_02743T0	Z519_07276T0	97.74	354	8	0	1	354	1	354	0	715
1	A105_02904T0	Z519_12773T0	97.74	266	6	0	1	266	1	266	3.00E-180	499
1	A105_03788T0	Z519_03110T0	97.74	177	4	0	1	177	1	177	5.00E-96	278
1	A105_04445T0	Z519_02277T0	97.74	133	3	0	1	133	1	133	1.00E-91	264
2	A105_05092T0	Z519_07982T0	97.74	442	10	0	1	442	1	442	0	912
6	A105_05259T0	Z519_08132T0	97.74	265	6	0	1	265	1	265	0	529
30	A105_06528T0	Z519_09137T0	97.74	398	9	0	243	640	1	398	0	816
152	A105_06953T0	Z519_06544T0	97.74	531	12	0	1	531	1	531	0	1039
1	A105_07544T0	Z519_06107T0	97.74	576	13	0	1	576	1	576	0	1157
2	A105_07574T0	Z519_06138T0	97.74	265	6	0	1	265	1	265	0	537
87	A105_08327T0	Z519_09541T0	97.74	531	12	0	1	531	1	531	0	1023
58	A105_08466T0	Z519_05586T0	97.74	664	15	0	13	676	13	676	0	1323
4	A105_09249T0	Z519_05358T0	97.74	840	19	0	1	840	1	840	0	1706
160	A105_09500T0	Z519_01084T0	97.74	532	12	0	1	532	1	532	0	1033
1	A105_09846T0	Z519_10371T0	97.74	221	5	0	1	221	1	221	3.00E-158	440
163	A105_09901T0	Z519_10316T0	97.74	265	6	0	1	265	1	265	0	520
1	A105_10862T0	Z519_11400T0	97.74	443	10	0	1	443	1	443	0	896
5	A105_10921T0	Z519_11460T0	97.74	265	6	0	1	265	1	265	0	538
1	A105_12328T0	Z519_12416T0	97.74	221	5	0	1	221	1	221	6.00E-147	411
13	A105_12356T0	Z519_12441T0	97.74	532	11	1	1	532	1	531	0	1005
12	A105_00279T0	Z519_00288T0	97.75	311	7	0	1	311	1	311	0	625
1	A105_00720T0	Z519_00712T0	97.75	400	9	0	1	400	1	400	0	776
9	A105_00839T0	Z519_00785T0	97.75	355	8	0	1	355	1	355	0	718
33	A105_01860T0	Z519_01604T0	97.75	1508	29	1	1	1508	1	1503	0	3033
158	A105_01943T0	Z519_01517T0	97.75	533	12	0	1	533	1	533	0	1072
1	A105_02466T0	Z519_06998T0	97.75	311	7	0	1	311	1	311	0	584
3	A105_02471T0	Z519_07003T0	97.75	488	11	0	1	488	1	488	0	991
97	A105_03335T0	Z519_10159T0	97.75	534	12	0	1	534	1	534	0	1026
1	A105_04116T0	Z519_03391T0	97.75	445	10	0	1	445	1	445	0	849
18	A105_04537T0	Z519_02364T0	97.75	356	8	0	1	356	1	356	0	724
21	A105_06157T0	Z519_04583T0	97.75	621	14	0	1	621	1	621	0	1231
1	A105_07830T0	Z519_07645T0	97.75	1069	24	0	1	1069	1	1069	0	2131
1	A105_08391T0	Z519_05651T0	97.75	267	6	0	1	267	1	267	0	528
16	A105_09881T0	Z519_10337T0	97.75	444	10	0	1	444	1	444	0	816

55	A105_10697T0	Z519_09883T0	97.75	577	13	0	1	577	1	577	0	1167
4	A105_11775T0	Z519_02906T0	97.75	1156	26	0	1	1156	1	1156	0	2290
2	A105_12239T0	Z519_04513T0	97.75	400	9	0	1	400	1	400	0	819
149	A105_00028T0	Z519_00027T0	97.76	401	9	0	1	401	1	401	0	797
1	A105_01422T0	Z519_11846T0	97.76	402	9	0	1	402	1	402	0	713
100	A105_01459T0	Z519_11809T0	97.76	581	13	0	1	581	1	581	0	1193
1	A105_01941T0	Z519_01519T0	97.76	981	22	0	1	981	1	981	0	1979
1	A105_03601T0	Z519_09729T0	97.76	313	7	0	1	313	1	313	0	605
5	A105_03887T0	Z519_03202T0	97.76	268	6	0	1	268	1	268	0	503
1	A105_05262T0	Z519_08135T0	97.76	490	11	0	1	490	1	490	0	900
21	A105_05290T0	Z519_08164T0	97.76	1431	32	0	1	1431	1	1431	0	2753
8	A105_06567T0	Z519_09098T0	97.76	492	11	0	1	492	1	492	0	989
106	A105_06832T0	Z519_06669T0	97.76	581	13	0	4	584	1	581	0	1203
8	A105_07259T0	Z519_05838T0	97.76	625	14	0	1	625	1	625	0	1186
1	A105_07620T0	Z519_06183T0	97.76	312	7	0	1	312	272	583	0	548
1	A105_07850T0	Z519_07679T0	97.76	446	10	0	1	446	1	446	0	858
2	A105_08941T0	Z519_05044T0	97.76	357	8	0	1	357	1	357	0	734
10	A105_10305T0	Z519_10970T0	97.76	446	10	0	1	446	1	446	0	904
2	A105_10445T0	Z519_11321T0	97.76	713	16	0	1	713	1	713	0	1412
5	A105_10526T0	Z519_12618T0	97.76	313	7	0	1	313	1	313	0	622
1	A105_11079T0	Z519_06879T0	97.76	671	15	0	1	671	1	671	0	1298
7	A105_12720T0	Z519_09793T0	97.76	669	15	0	1	669	1	669	0	1359
3	A105_12778T0	Z519_10836T0	97.76	624	14	0	10	633	742	1365	0	1305
3	A105_00058T0	Z519_00057T0	97.77	672	15	0	1	672	1	672	0	1316
3	A105_01662T0	Z519_01754T0	97.77	494	11	0	1	494	1	494	0	914
36	A105_01971T0	Z519_01488T0	97.77	403	9	0	1	403	1	403	0	783
6	A105_02979T0	Z519_12050T0	97.77	674	15	0	1	674	368	1041	0	1318
1	A105_03773T0	Z519_03095T0	97.77	1345	28	1	1	1345	1	1343	0	2687
1	A105_05812T0	Z519_04921T0	97.77	717	16	0	1	717	1	717	0	1412
8	A105_06290T0	Z519_10732T0	97.77	494	7	1	1	494	1	490	0	999
1	A105_06388T0	Z519_10652T0	97.77	179	4	0	1	179	1	179	1.00E-127	359
33	A105_07576T0	Z519_06140T0	97.77	269	6	0	1	269	1	269	0	506
2	A105_08686T0	Z519_03973T0	97.77	403	9	0	1	403	1	403	0	823
7	A105_09281T0	Z519_01284T0	97.77	403	9	0	1	403	1	403	0	826
2	A105_10117T0	Z519_04266T0	97.77	806	18	0	1	806	1	806	0	1633

3	A105_10244T0	Z519_10909T0	97.77	179	4	0	1	179	1	179	1.00E-123	351
20	A105_11084T0	Z519_06884T0	97.77	314	7	0	1	314	1	314	0	617
1	A105_11274T0	Z519_08804T0	97.77	359	8	0	1	359	1	359	0	728
1	A105_11454T0	Z519_08737T0	97.77	269	6	0	1	269	1	269	1.00E-153	432
4	A105_11668T0	Z519_08628T0	97.77	584	13	0	1	584	1	584	0	1157
3	A105_11957T0	Z519_05776T0	97.77	718	16	0	1	718	1	718	0	1390
1	A105_11992T0	Z519_05739T0	97.77	404	9	0	1	404	1	404	0	791
14	A105_12402T0	Z519_06274T0	97.77	582	13	0	12	593	18	599	0	1155
1	A105_12443T0	Z519_12668T0	97.77	1121	25	0	1	1121	1	1121	0	2038
1	A105_13431T0	Z519_12200T0	97.77	583	13	0	1	583	1	583	0	1197
1	A105_01037T0	Z519_00961T0	97.78	90	2	0	1	90	48	137	2.00E-58	177
8	A105_01731T0	Z519_01707T0	97.78	1034	23	0	1	1034	1	1034	0	2079
183	A105_01874T0	Z519_01590T0	97.78	315	7	0	1	315	1	315	0	636
1	A105_02173T0	Z519_01305T0	97.78	1441	32	0	1	1441	1	1441	0	2795
1	A105_02758T0	Z519_07290T0	97.78	809	18	0	1	809	1	809	0	1546
1	A105_03356T0	Z519_10179T0	97.78	450	10	0	1	450	1	450	0	852
8	A105_03410T0	Z519_10231T0	97.78	360	8	0	1	360	23	382	0	744
2	A105_03794T0	Z519_03115T0	97.78	405	9	0	1	405	1	405	0	823
1	A105_04403T0	Z519_02234T0	97.78	405	9	0	1	405	45	449	0	771
9	A105_04561T0	Z519_02388T0	97.78	495	11	0	1	495	1	495	0	1012
7	A105_05527T0	Z519_03643T0	97.78	809	18	0	1	809	1	809	0	1633
1	A105_06035T0	Z519_04703T0	97.78	90	2	0	19	108	51	140	4.00E-55	170
8	A105_09174T0	Z519_05287T0	97.78	361	8	0	1	361	1	361	0	737
2	A105_09788T0	Z519_10432T0	97.78	450	10	0	1	450	1	450	0	921
9	A105_11715T0	Z519_02964T0	97.78	360	8	0	1	360	1	360	0	731
17	A105_00127T0	Z519_00128T0	97.79	317	7	0	1	317	1	317	0	648
8	A105_01051T0	Z519_00974T0	97.79	407	9	0	1	407	1	407	0	823
3	A105_01076T0	Z519_00996T0	97.79	633	14	0	1	633	40	672	0	1261
11	A105_01149T0	Z519_08415T0	97.79	407	9	0	1	407	1	407	0	824
1	A105_01955T0	Z519_01504T0	97.79	136	3	0	1	136	1	136	9.00E-94	270
1	A105_02367T0	Z519_11605T0	97.79	226	5	0	2	227	11	236	9.00E-162	450
1	A105_02747T0	Z519_07280T0	97.79	453	8	1	30	480	1	453	0	758
1	A105_03082T0	Z519_11956T0	97.79	317	7	0	1	317	1	317	0	532
20	A105_03425T0	Z519_10247T0	97.79	679	15	0	1	679	1	679	0	1378
1	A105_04973T0	Z519_02797T0	97.79	272	6	0	1	272	19	290	0	548

4	A105_05285T0	Z519_08159T0	97.79	678	15	0	1	678	1	678	0	1360
1	A105_07779T0	Z519_07594T0	97.79	317	7	0	1	317	1	317	0	602
16	A105_08458T0	Z519_05594T0	97.79	317	7	0	1	317	1	317	0	633
8	A105_08607T0	Z519_04042T0	97.79	452	10	0	27	478	7	458	0	885
25	A105_08946T0	Z519_05049T0	97.79	588	13	0	1	588	1	588	0	1142
1	A105_10164T0	Z519_12689T0	97.79	903	20	0	1	903	1	903	0	1729
1	A105_10816T0	Z519_12252T0	97.79	408	9	0	51	458	1	408	0	833
73	A105_11628T0	Z519_08667T0	97.79	452	10	0	82	533	1	452	0	926
3	A105_11972T0	Z519_05760T0	97.79	453	10	0	1	453	1	453	0	843
7	A105_01919T0	Z519_01542T0	97.8	182	4	0	1	182	1	182	2.00E-127	359
4	A105_02045T0	Z519_01411T0	97.8	591	13	0	1	591	117	707	0	1147
8	A105_02360T0	Z519_11611T0	97.8	546	12	0	1	546	1	546	0	1066
1	A105_02831T0	Z519_07362T0	97.8	865	18	1	1	864	1	865	0	1707
147	A105_03106T0	Z519_09959T0	97.8	545	12	0	1	545	1	545	0	1119
75	A105_04443T0	Z519_02275T0	97.8	592	13	0	1	592	1	592	0	1158
3	A105_04478T0	Z519_02307T0	97.8	636	14	0	34	669	22	657	0	1295
10	A105_05557T0	Z519_03672T0	97.8	500	11	0	1	500	1	500	0	961
22	A105_06283T0	Z519_10739T0	97.8	635	14	0	1	635	1	635	0	1240
14	A105_06935T0	Z519_06564T0	97.8	364	8	0	1	364	1	364	0	747
15	A105_07822T0	Z519_07638T0	97.8	318	7	0	1	318	1	318	0	650
1	A105_07881T0	Z519_07712T0	97.8	590	13	0	1	590	1	590	0	1112
5	A105_08158T0	Z519_09382T0	97.8	1412	31	0	1	1412	70	1481	0	2763
183	A105_08644T0	Z519_04014T0	97.8	273	6	0	1	273	1	273	0	550
25	A105_08687T0	Z519_03972T0	97.8	455	10	0	1	455	6	460	0	881
1	A105_11198T0	Z519_08884T0	97.8	545	12	0	1	545	1	545	0	877
3	A105_11453T0	Z519_08736T0	97.8	501	10	1	2	501	14	514	0	1007
1	A105_11640T0	Z519_08658T0	97.8	91	2	0	1	91	1	91	2.00E-42	135
2	A105_12270T0	Z519_04484T0	97.8	364	8	0	1	364	1	364	0	708
23	A105_12616T0	Z519_05425T0	97.8	682	15	0	1	682	1	682	0	1352
7	A105_12879T0	Z519_07482T0	97.8	1135	23	2	1	1133	1	1135	0	2254
1	A105_00136T0	Z519_00137T0	97.81	319	7	0	1	319	1	319	0	635
3	A105_00612T0	Z519_00623T0	97.81	137	3	0	1	137	1	137	1.00E-85	249
15	A105_02423T0	Z519_06951T0	97.81	319	7	0	1	319	1	319	0	647
1	A105_03333T0	Z519_10157T0	97.81	456	10	0	1	456	1	456	0	915
1	A105_06020T0	Z519_04716T0	97.81	547	12	0	1	547	1	547	0	1060

1	A105_07798T0	Z519_07613T0	97.81	411	9	0	1	411	1	411	0	830
163	A105_08677T0	Z519_03982T0	97.81	274	6	0	1	274	1	274	0	548
1	A105_08924T0	Z519_03727T0	97.81	319	7	0	1	319	1	319	0	638
6	A105_09548T0	Z519_01048T0	97.81	456	10	0	1	456	1	456	0	919
8	A105_09829T0	Z519_10388T0	97.81	547	12	0	1	547	1	547	0	1098
13	A105_10231T0	Z519_10898T0	97.81	457	10	0	1	457	1	457	0	917
4	A105_10981T0	Z519_11514T0	97.81	1004	22	0	1	1004	1	1004	0	2006
4	A105_13164T0	Z519_04360T0	97.81	594	13	0	1	594	1	594	0	1188
1	A105_00845T0	Z519_00792T0	97.82	367	8	0	1	367	1	367	0	723
12	A105_02243T0	Z519_11736T0	97.82	595	13	0	1	595	1	595	0	1184
148	A105_02244T0	Z519_11735T0	97.82	550	12	0	1	550	1	550	0	1126
146	A105_02765T0	Z519_07297T0	97.82	551	12	0	1	551	4	554	0	1013
26	A105_03005T0	Z519_12024T0	97.82	962	20	1	1	962	1	961	0	1954
4	A105_04385T0	Z519_02212T0	97.82	641	14	0	15	655	15	655	0	1300
157	A105_05867T0	Z519_04867T0	97.82	597	13	0	1	597	1	597	0	1202
14	A105_08544T0	Z519_04237T0	97.82	551	12	0	1	551	1	551	0	1093
1	A105_08599T0	Z519_04050T0	97.82	275	6	0	1	275	1	275	0	553
15	A105_10611T0	Z519_11106T0	97.82	641	14	0	1	641	1	641	0	1276
4	A105_10855T0	Z519_11393T0	97.82	367	8	0	1	367	5	371	0	746
1	A105_11156T0	Z519_08920T0	97.82	321	7	0	1	321	1	321	0	654
132	A105_11544T0	Z519_11552T0	97.82	275	6	0	4	278	1	275	0	563
1	A105_12288T0	Z519_04466T0	97.82	321	7	0	1	321	1	321	0	646
66	A105_12970T0	Z519_04388T0	97.82	551	12	0	1	551	1	551	0	1055
3	A105_13158T0	Z519_04366T0	97.82	275	6	0	1	275	1	275	0	543
17	A105_00121T0	Z519_00121T0	97.83	1334	29	0	1	1334	1	1334	0	2657
3	A105_01000T0	Z519_00926T0	97.83	1752	37	1	1	1752	1	1751	0	3556
1	A105_01384T0	Z519_11885T0	97.83	184	4	0	1	184	1	184	3.00E-119	338
2	A105_02568T0	Z519_07098T0	97.83	739	16	0	1	739	1	739	0	1384
2	A105_02664T0	Z519_07196T0	97.83	598	13	0	1	598	24	621	0	1195
2	A105_03277T0	Z519_10125T0	97.83	184	4	0	1	184	1	184	8.00E-133	372
1	A105_03809T0	Z519_03130T0	97.83	92	2	0	1	92	1	92	2.00E-58	176
1	A105_04023T0	Z519_03320T0	97.83	184	4	0	1	184	1	184	1.00E-128	362
1	A105_04476T0	Z519_02305T0	97.83	2031	44	0	1	2031	1	2031	0	3962
69	A105_04639T0	Z519_02467T0	97.83	506	11	0	1	506	1	506	0	990
1	A105_04819T0	Z519_02644T0	97.83	323	7	0	1	323	1	323	0	652

74	A105_05672T0	Z519_11177T0	97.83	599	13	0	1	599	1	599	0	1192
7	A105_05864T0	Z519_04870T0	97.83	368	8	0	1	368	1	368	0	755
1	A105_06289T0	Z519_10733T0	97.83	277	6	0	1	277	1	277	0	560
3	A105_06413T0	Z519_10628T0	97.83	600	13	0	1	600	85	684	0	1180
89	A105_06441T0	Z519_10600T0	97.83	507	11	0	1	507	1	507	0	993
1	A105_06736T0	Z519_06774T0	97.83	692	15	0	1	692	1	692	0	1414
1	A105_06773T0	Z519_06724T0	97.83	92	2	0	1	92	163	254	2.00E-60	187
158	A105_06883T0	Z519_06616T0	97.83	460	10	0	1	460	1	460	0	903
7	A105_07019T0	Z519_06482T0	97.83	323	7	0	1	323	1	323	0	639
1	A105_08736T0	Z519_03923T0	97.83	138	3	0	1	138	1	138	3.00E-96	276
21	A105_08980T0	Z519_05084T0	97.83	277	6	0	1	277	1	277	0	542
2	A105_11528T0	Z519_11571T0	97.83	277	6	0	1	277	1	277	0	556
8	A105_12071T0	Z519_12333T0	97.83	414	9	0	1	414	1	414	0	837
2	A105_12141T0	Z519_09254T0	97.83	1382	30	0	1	1382	1	1382	0	2788
44	A105_12440T0	Z519_12672T0	97.83	552	12	0	1	552	1	552	0	1110
1	A105_12575T0	Z519_05468T0	97.83	1428	31	0	1	1428	1	1428	0	2887
3	A105_00091T0	Z519_00090T0	97.84	185	4	0	1	185	1	185	7.00E-126	355
3	A105_01323T0	Z519_08587T0	97.84	832	18	0	1	832	1	832	0	1642
1	A105_01349T0	Z519_11922T0	97.84	417	9	0	1	417	1	417	0	843
1	A105_03523T0	Z519_09646T0	97.84	509	11	0	3	511	96	604	0	1027
4	A105_04483T0	Z519_02312T0	97.84	185	4	0	1	185	38	222	7.00E-127	359
2	A105_05383T0	Z519_08257T0	97.84	231	5	0	1	231	1	231	1.00E-168	467
154	A105_05965T0	Z519_04770T0	97.84	510	11	0	1	510	1	510	0	1035
1	A105_06175T0	Z519_04565T0	97.84	926	20	0	1	926	33	958	0	1878
1	A105_07189T0	Z519_06311T0	97.84	1388	30	0	1	1388	1	1388	0	2833
11	A105_12109T0	Z519_12370T0	97.84	185	4	0	1	185	150	334	6.00E-131	375
8	A105_00412T0	Z519_00413T0	97.85	605	13	0	1	605	1	605	0	1184
4	A105_04099T0	Z519_03372T0	97.85	465	10	0	1	465	1	465	0	954
1	A105_05933T0	Z519_04801T0	97.85	2139	46	0	1	2139	1	2139	0	4222
1	A105_06114T0	Z519_04624T0	97.85	697	15	0	1	697	1	697	0	1350
18	A105_06233T0	Z519_10778T0	97.85	979	13	2	1	979	1	971	0	1923
139	A105_06485T0	Z519_09179T0	97.85	604	13	0	1	604	1	604	0	1211
1	A105_09311T0	Z519_01255T0	97.85	186	4	0	1	186	17	202	9.00E-134	376
23	A105_10156T0	Z519_12697T0	97.85	1162	24	1	1	1161	1	1162	0	2260
1	A105_12610T0	Z519_05430T0	97.85	279	6	0	1	279	1	279	0	574

28	A105_00510T0	Z519_00518T0	97.86	701	15	0	1	701	9	709	0	1368
70	A105_02247T0	Z519_11732T0	97.86	561	11	1	10	570	12	571	0	1057
1	A105_02329T0	Z519_11645T0	97.86	280	6	0	1	280	1	280	0	556
1	A105_02335T0	Z519_11639T0	97.86	1073	23	0	1	1073	1	1073	0	2049
3	A105_02998T0	Z519_12031T0	97.86	234	5	0	1	234	1	234	5.00E-173	479
1	A105_03525T0	Z519_09648T0	97.86	514	11	0	1	514	1	514	0	1008
4	A105_03992T0	Z519_03290T0	97.86	1213	26	0	1	1213	1	1213	0	2495
5	A105_06460T0	Z519_09200T0	97.86	234	5	0	1	234	1	234	6.00E-170	471
1	A105_07272T0	Z519_05850T0	97.86	607	13	0	1	607	1	607	0	1237
1	A105_07605T0	Z519_06168T0	97.86	374	8	0	1	374	1	374	0	734
75	A105_07806T0	Z519_07621T0	97.86	842	18	0	1	842	1	842	0	1682
39	A105_08319T0	Z519_09534T0	97.86	513	11	0	1	513	1	513	0	1027
1	A105_09016T0	Z519_05121T0	97.86	187	4	0	1	187	1	187	7.00E-135	378
2	A105_09101T0	Z519_05211T0	97.86	327	7	0	1	327	1	327	0	659
1	A105_10444T0	Z519_11320T0	97.86	607	13	0	1	607	1	607	0	1146
1	A105_10924T0	Z519_11463T0	97.86	281	6	0	1	281	1	281	0	552
4	A105_12238T0	Z519_04514T0	97.86	187	4	0	1	187	64	250	3.00E-135	381
5	A105_13455T0	Z519_12704T0	97.86	842	13	1	1	842	1	837	0	1710
14	A105_00198T0	Z519_00200T0	97.87	329	7	0	1	329	1	329	0	661
23	A105_00558T0	Z519_00569T0	97.87	563	12	0	1	563	1	563	0	1081
4	A105_01318T0	Z519_08582T0	97.87	609	13	0	1	609	1	609	0	1204
5	A105_02012T0	Z519_01445T0	97.87	516	11	0	1	516	1	516	0	1029
1	A105_02636T0	Z519_07165T0	97.87	1032	22	0	1	1032	18	1049	0	2075
2	A105_04612T0	Z519_02440T0	97.87	94	2	0	1	94	155	248	3.00E-62	191
10	A105_04653T0	Z519_02479T0	97.87	329	7	0	1	329	1	329	0	636
2	A105_04795T0	Z519_02624T0	97.87	658	14	0	1	658	1	658	0	1308
2	A105_05450T0	Z519_08327T0	97.87	188	4	0	1	188	1	188	5.00E-133	374
1	A105_06415T0	Z519_10626T0	97.87	376	8	0	1	376	1	376	0	733
5	A105_07666T0	Z519_06230T0	97.87	517	11	0	1	517	1	517	0	963
1	A105_07906T0	Z519_07736T0	97.87	470	10	0	23	492	116	585	0	965
1	A105_08000T0	Z519_07836T0	97.87	517	11	0	1	517	1	517	0	1013
9	A105_08021T0	Z519_07858T0	97.87	328	7	0	1	328	1	328	0	665
4	A105_08507T0	Z519_05544T0	97.87	940	20	0	1	940	1	940	0	1821
13	A105_09001T0	Z519_05106T0	97.87	611	13	0	1	611	1	611	0	1210
13	A105_09095T0	Z519_05205T0	97.87	329	7	0	1	329	1	329	0	652

11	A105_10020T0	Z519_04150T0	97.87	797	16	1	1	797	1	796	0	1554
1	A105_10538T0	Z519_12605T0	97.87	329	7	0	1	329	1	329	0	645
3	A105_10662T0	Z519_09849T0	97.87	282	6	0	1	282	1	282	0	567
15	A105_10782T0	Z519_12284T0	97.87	188	4	0	1	188	1	188	5.00E-138	386
105	A105_11030T0	Z519_06832T0	97.87	563	12	0	1	563	1	563	0	1141
1	A105_11354T0	Z519_02105T0	97.87	94	2	0	1	94	1	94	1.00E-64	192
12	A105_11520T0	Z519_11579T0	97.87	1218	26	0	1	1218	1	1218	0	2439
2	A105_12165T0	Z519_09282T0	97.87	611	13	0	2	612	3	613	0	1225
1	A105_12473T0	Z519_12645T0	97.87	516	11	0	1	516	1	516	0	943
1	A105_00455T0	Z519_00462T0	97.88	424	9	0	1	424	1	424	0	779
12	A105_02110T0	Z519_01370T0	97.88	471	10	0	1	471	1	471	0	941
4	A105_02208T0	Z519_11767T0	97.88	565	12	0	1	565	41	605	0	1142
1	A105_02628T0	Z519_07157T0	97.88	189	4	0	1	189	1	189	2.00E-133	374
1	A105_04178T0	Z519_03456T0	97.88	425	9	0	1	425	1	425	0	825
18	A105_04655T0	Z519_02481T0	97.88	424	9	0	1	424	1	424	0	788
6	A105_06609T0	Z519_09055T0	97.88	565	12	0	1	565	1	565	0	1146
13	A105_08428T0	Z519_05622T0	97.88	236	4	1	1	235	1	236	4.00E-158	441
65	A105_08962T0	Z519_05065T0	97.88	566	12	0	1	566	1	566	0	1141
11	A105_09358T0	Z519_01210T0	97.88	283	6	0	1	283	1	283	0	544
3	A105_09762T0	Z519_10460T0	97.88	425	9	0	1	425	1	425	0	822
15	A105_10571T0	Z519_12573T0	97.88	800	17	0	1	800	1	800	0	1374
1	A105_12585T0	Z519_05457T0	97.88	377	7	1	1	377	1	376	0	772
39	A105_12828T0	Z519_07432T0	97.88	567	12	0	39	605	34	600	0	1145
1	A105_02121T0	Z519_01357T0	97.89	332	7	0	1	332	1	332	0	669
12	A105_02343T0	Z519_11627T0	97.89	190	4	0	1	190	1	190	1.00E-139	390
3	A105_02492T0	Z519_07025T0	97.89	662	14	0	1	662	1	662	0	1298
2	A105_02821T0	Z519_07351T0	97.89	1324	28	0	1	1324	1	1324	0	2524
4	A105_02823T0	Z519_07354T0	97.89	475	10	0	1	475	1	475	0	904
1	A105_02844T0	Z519_07374T0	97.89	237	5	0	1	237	1	237	4.00E-152	426
95	A105_03374T0	Z519_10195T0	97.89	569	12	0	1	569	1	569	0	1124
3	A105_03983T0	Z519_03281T0	97.89	190	4	0	1	190	1	190	5.00E-136	381
2	A105_04119T0	Z519_03397T0	97.89	473	10	0	1	473	1	473	0	953
1	A105_05591T0	Z519_03701T0	97.89	142	3	0	1	142	1	142	4.00E-99	284
9	A105_07115T0	Z519_06385T0	97.89	331	7	0	1	331	1	331	0	644
1	A105_07171T0	Z519_06331T0	97.89	285	6	0	1	285	1	285	0	572

21	A105_07762T0	Z519_07575T0	97.89	568	12	0	1	568	1	568	0	1130
1	A105_07866T0	Z519_07697T0	97.89	473	10	0	1	473	1	473	0	913
2	A105_07948T0	Z519_07790T0	97.89	379	8	0	1	379	1	379	0	744
1	A105_08199T0	Z519_09423T0	97.89	664	14	0	1	664	1	664	0	1283
1	A105_08239T0	Z519_09459T0	97.89	522	11	0	1	522	1	522	0	887
104	A105_08415T0	Z519_05635T0	97.89	569	12	0	1	569	1	569	0	1168
3	A105_08471T0	Z519_05581T0	97.89	332	7	0	1	332	1	332	0	674
91	A105_09115T0	Z519_05225T0	97.89	284	6	0	1	284	1	284	0	570
10	A105_09807T0	Z519_10413T0	97.89	379	8	0	1	379	1	379	0	783
1	A105_10457T0	Z519_11334T0	97.89	237	5	0	1	237	1	237	2.00E-172	478
1	A105_12119T0	Z519_12379T0	97.89	95	2	0	1	95	1	95	2.00E-51	159
9	A105_03889T0	Z519_03204T0	97.9	668	14	0	1	668	1	668	0	1381
3	A105_04111T0	Z519_03384T0	97.9	477	10	0	1	477	1	477	0	943
15	A105_04546T0	Z519_02373T0	97.9	1236	26	0	1	1236	1	1236	0	2461
1	A105_05705T0	Z519_11145T0	97.9	809	16	1	1	808	1	809	0	1614
16	A105_07235T0	Z519_05812T0	97.9	667	14	0	41	707	41	707	0	1347
1	A105_08074T0	Z519_04326T0	97.9	333	7	0	1	333	84	416	0	675
1	A105_09665T0	Z519_10539T0	97.9	1428	28	2	1	1428	1	1426	0	2666
158	A105_00688T0	Z519_00683T0	97.91	526	6	1	1	521	1	526	0	1010
2	A105_01066T0	Z519_00988T0	97.91	191	4	0	1	191	5	195	5.00E-122	346
51	A105_01220T0	Z519_08488T0	97.91	239	5	0	1	239	1	239	7.00E-169	468
1	A105_02741T0	Z519_07274T0	97.91	191	4	0	1	191	1	191	2.00E-137	385
3	A105_04511T0	Z519_02339T0	97.91	383	8	0	1	383	1	383	0	756
4	A105_04840T0	Z519_02664T0	97.91	1146	24	0	1	1146	1	1146	0	2172
3	A105_05770T0	Z519_04967T0	97.91	478	10	0	1	478	1	478	0	943
2	A105_06230T0	Z519_10781T0	97.91	431	9	0	1	431	1	431	0	877
155	A105_08370T0	Z519_09582T0	97.91	526	11	0	10	535	102	627	0	1046
10	A105_08898T0	Z519_03755T0	97.91	430	9	0	1	430	1	430	0	868
1	A105_09147T0	Z519_05257T0	97.91	1199	21	1	1	1199	1	1195	0	2013
11	A105_09171T0	Z519_05284T0	97.91	574	12	0	1	574	1	574	0	1150
73	A105_09344T0	Z519_01223T0	97.91	907	19	0	1	907	369	1275	0	1811
163	A105_10448T0	Z519_11324T0	97.91	527	11	0	1	527	1	527	0	1082
1	A105_12323T0	Z519_12410T0	97.91	191	4	0	1	191	6	196	1.00E-137	386
1	A105_00074T0	Z519_00073T0	97.92	385	8	0	1	385	1	385	0	777
7	A105_00399T0	Z519_00401T0	97.92	289	6	0	10	298	7	295	0	552

15	A105_01090T0	Z519_08369T0	97.92	144	3	0	1	144	1	144	5.00E-100	291
1	A105_01281T0	Z519_08546T0	97.92	144	3	0	1	144	1	144	9.00E-101	288
1	A105_01317T0	Z519_08581T0	97.92	577	12	0	1	577	1	577	0	1145
154	A105_02988T0	Z519_12041T0	97.92	528	11	0	1	528	1	528	0	1056
4	A105_02990T0	Z519_12039T0	97.92	385	8	0	1	385	80	464	0	668
107	A105_03558T0	Z519_09680T0	97.92	530	11	0	1	530	1	530	0	1063
1	A105_05087T0	Z519_07977T0	97.92	625	13	0	1	625	1	625	0	1283
47	A105_06347T0	Z519_10692T0	97.92	528	11	0	1	528	206	733	0	1067
12	A105_06566T0	Z519_09099T0	97.92	963	20	0	1	963	1	963	0	1817
1	A105_08182T0	Z519_09405T0	97.92	432	9	0	1	432	1	432	0	864
1	A105_08426T0	Z519_05624T0	97.92	144	3	0	1	144	1	144	7.00E-88	255
156	A105_09834T0	Z519_10383T0	97.92	480	8	1	19	498	19	496	0	955
9	A105_11888T0	Z519_01991T0	97.92	337	7	0	1	337	1	337	0	676
1	A105_12154T0	Z519_09267T0	97.92	2785	57	1	1	2784	1	2785	0	5470
10	A105_12734T0	Z519_10794T0	97.92	336	7	0	1	336	1	336	0	647
2	A105_13132T0	Z519_11258T0	97.92	673	14	0	1	673	1	673	0	1341
7	A105_02782T0	Z519_07314T0	97.93	386	8	0	32	417	32	417	0	710
1	A105_03177T0	Z519_10026T0	97.93	387	8	0	1	387	1	387	0	782
3	A105_04075T0	Z519_03351T0	97.93	581	12	0	1	581	1	581	0	1149
1	A105_05461T0	Z519_08338T0	97.93	484	10	0	1	484	1	484	0	912
1	A105_05795T0	Z519_04938T0	97.93	774	16	0	1	774	1	774	0	1565
2	A105_07781T0	Z519_07596T0	97.93	532	11	0	17	548	17	548	0	1098
3	A105_08143T0	Z519_09366T0	97.93	434	9	0	1	434	1	434	0	870
16	A105_08838T0	Z519_03815T0	97.93	338	7	0	1	338	1	338	0	660
2	A105_08846T0	Z519_03807T0	97.93	193	4	0	1	193	1	193	1.00E-129	365
1	A105_09160T0	Z519_05271T0	97.93	241	5	0	1	241	1	241	6.00E-170	471
2	A105_11693T0	Z519_08602T0	97.93	145	3	0	1	145	1	145	5.00E-102	291
1	A105_11907T0	Z519_02010T0	97.93	145	3	0	1	145	1	145	4.00E-84	246
1	A105_11950T0	Z519_05783T0	97.93	1447	30	0	1	1447	1	1447	0	2879
1	A105_12851T0	Z519_07456T0	97.93	482	10	0	1	482	1	482	0	962
1	A105_00051T0	Z519_00050T0	97.94	777	16	0	1	777	1	777	0	1575
1	A105_00139T0	Z519_00140T0	97.94	437	8	1	1	437	73	508	0	869
1	A105_04002T0	Z519_03300T0	97.94	97	2	0	1	97	58	154	8.00E-58	177
41	A105_04296T0	Z519_03576T0	97.94	486	10	0	1	486	1	486	0	917
4	A105_04664T0	Z519_02493T0	97.94	1313	27	0	10	1322	44	1356	0	2651

1	A105_05301T0	Z519_08175T0	97.94	340	7	0	1	340	1	340	0	691
4	A105_06629T0	Z519_09036T0	97.94	486	10	0	1	486	1	486	0	904
11	A105_06909T0	Z519_06590T0	97.94	436	9	0	25	460	5	440	0	891
1	A105_07938T0	Z519_07773T0	97.94	291	6	0	1	291	1	291	0	546
26	A105_11844T0	Z519_01950T0	97.94	631	7	1	1	631	1	625	0	1135
3	A105_11900T0	Z519_02003T0	97.94	969	20	0	1	969	1	969	0	1835
2	A105_12816T0	Z519_12534T0	97.94	486	10	0	1	486	1	486	0	946
12	A105_12993T0	Z519_04408T0	97.94	339	7	0	1	339	1	339	0	694
1	A105_13304T0	Z519_05029T0	97.94	243	5	0	1	243	1	243	2.00E-177	491
3	A105_13336T0	Z519_09333T0	97.94	243	5	0	1	243	1	243	1.00E-168	468
1	A105_00196T0	Z519_00198T0	97.95	487	10	0	1	487	1	487	0	985
1	A105_00549T0	Z519_00559T0	97.95	195	4	0	1	195	1	195	6.00E-139	389
42	A105_01124T0	Z519_08397T0	97.95	488	10	0	1	488	1	488	0	957
1	A105_01640T0	Z519_01777T0	97.95	537	11	0	1	537	1	537	0	1009
11	A105_01995T0	Z519_01465T0	97.95	732	14	1	1	731	1	732	0	1468
1	A105_02409T0	Z519_06937T0	97.95	488	10	0	1	488	1	488	0	997
19	A105_02550T0	Z519_07081T0	97.95	292	6	0	1	292	1	292	0	578
1	A105_03091T0	Z519_11947T0	97.95	634	13	0	1	634	1	634	0	1184
68	A105_04305T0	Z519_03585T0	97.95	1120	23	0	1	1120	27	1146	0	2170
33	A105_05811T0	Z519_04922T0	97.95	292	6	0	1	292	1	292	0	583
20	A105_05838T0	Z519_04894T0	97.95	341	7	0	1	341	1	341	0	692
90	A105_05944T0	Z519_04790T0	97.95	536	11	0	1	536	1	536	0	1014
1	A105_06663T0	Z519_09006T0	97.95	487	10	0	1	487	1	487	0	974
33	A105_07463T0	Z519_06030T0	97.95	341	7	0	1	341	1	341	0	687
2	A105_08710T0	Z519_03949T0	97.95	684	9	1	1	684	1	679	0	1232
15	A105_09083T0	Z519_05194T0	97.95	195	4	0	1	195	1	195	2.00E-143	400
104	A105_09847T0	Z519_10370T0	97.95	584	12	0	1	584	1	584	0	1198
62	A105_10342T0	Z519_11013T0	97.95	488	10	0	1	488	58	545	0	973
25	A105_12517T0	Z519_02847T0	97.95	440	9	0	1	440	170	609	0	900
1	A105_00512T0	Z519_00520T0	97.96	49	1	0	1	49	1	49	6.00E-28	97.1
10	A105_00530T0	Z519_00537T0	97.96	980	20	0	1	980	1	980	0	1882
28	A105_01449T0	Z519_11819T0	97.96	588	11	1	1	587	1	588	0	1160
3	A105_02032T0	Z519_01424T0	97.96	294	5	1	1	294	1	293	0	588
1	A105_02745T0	Z519_07278T0	97.96	98	2	0	1	98	1	98	2.00E-52	162
3	A105_04884T0	Z519_02708T0	97.96	588	12	0	1	588	1	588	0	1184

2	A105_05464T0	Z519_08341T0	97.96	490	10	0	1	490	1	490	0	936
1	A105_06101T0	Z519_05712T0	97.96	491	10	0	1	491	1	491	0	979
195	A105_06257T0	Z519_10756T0	97.96	245	4	1	1	244	3	247	3.00E-173	480
1	A105_06916T0	Z519_06583T0	97.96	196	4	0	1	196	1	196	2.00E-136	382
1	A105_09886T0	Z519_10332T0	97.96	98	2	0	1	98	1	98	5.00E-66	197
7	A105_10488T0	Z519_11364T0	97.96	245	5	0	1	245	1	245	0	499
1	A105_11048T0	Z519_06849T0	97.96	245	4	1	1	245	1	244	4.00E-169	469
1	A105_00860T0	Z519_00808T0	97.97	934	16	2	1	934	1	931	0	1755
3	A105_01021T0	Z519_00945T0	97.97	345	7	0	16	360	2	346	0	687
1	A105_01101T0	Z519_08375T0	97.97	197	4	0	2	198	58	254	2.00E-131	372
6	A105_02322T0	Z519_11653T0	97.97	443	9	0	1	443	1	443	0	874
2	A105_03520T0	Z519_09643T0	97.97	1233	24	1	1	1232	1	1233	0	2433
1	A105_03969T0	Z519_03268T0	97.97	148	3	0	1	148	1	148	3.00E-103	296
2	A105_07908T0	Z519_07738T0	97.97	492	10	0	4	495	54	545	0	947
7	A105_08041T0	Z519_07876T0	97.97	1184	24	0	1	1184	1	1184	0	2272
1	A105_08068T0	Z519_04331T0	97.97	246	5	0	1	246	1	246	2.00E-164	458
12	A105_08366T0	Z519_09578T0	97.97	444	9	0	1	444	1	444	0	899
7	A105_08830T0	Z519_03823T0	97.97	444	8	1	1	443	1	444	0	880
201	A105_08999T0	Z519_05104T0	97.97	1281	26	0	1	1281	1	1281	0	2528
152	A105_11138T0	Z519_08937T0	97.97	640	13	0	1	640	1	640	0	1301
1	A105_11432T0	Z519_08712T0	97.97	1182	21	1	1	1182	1	1179	0	2358
76	A105_11722T0	Z519_02957T0	97.97	541	11	0	1	541	1	541	0	1087
8	A105_13254T0	Z519_12162T0	97.97	837	17	0	1	837	1	837	0	1691
1	A105_02182T0	Z519_01296T0	97.98	247	5	0	1	247	1	247	3.00E-169	470
2	A105_04274T0	Z519_03552T0	97.98	346	7	0	1	346	1	346	0	690
45	A105_05431T0	Z519_08306T0	97.98	396	8	0	1	396	1	396	0	806
1	A105_05761T0	Z519_04976T0	97.98	694	14	0	1	694	90	783	0	1365
2	A105_05887T0	Z519_04847T0	97.98	445	9	0	1	445	1	445	0	885
1	A105_07902T0	Z519_07733T0	97.98	346	7	0	426	771	435	780	0	606
67	A105_08365T0	Z519_09577T0	97.98	297	6	0	1	297	1	297	0	601
2	A105_09051T0	Z519_05163T0	97.98	644	13	0	1	644	1	644	0	1269
1	A105_10815T0	Z519_12253T0	97.98	99	2	0	1	99	1	99	7.00E-59	178
1	A105_11875T0	Z519_01979T0	97.98	1533	31	0	1	1533	1	1533	0	3075
96	A105_12458T0	Z519_12653T0	97.98	544	11	0	1	544	1	544	0	1113
34	A105_12702T0	Z519_09805T0	97.98	594	12	0	1	594	129	722	0	1222

61	A105_12986T0	Z519_04403T0	97.98	989	20	0	1	989	1	989	0	1964
2	A105_00205T0	Z519_00207T0	97.99	249	5	0	1	249	1	249	0	507
22	A105_00710T0	Z519_00704T0	97.99	349	6	1	1	349	1	348	0	703
138	A105_00850T0	Z519_00798T0	97.99	546	11	0	1	546	1	546	0	1113
152	A105_01912T0	Z519_01549T0	97.99	646	13	0	1	646	1	646	0	1293
113	A105_02139T0	Z519_01339T0	97.99	546	11	0	1	546	1	546	0	1099
1	A105_03213T0	Z519_10063T0	97.99	497	10	0	1	497	1	497	0	1013
74	A105_03292T0	Z519_10140T0	97.99	598	12	0	1	598	1	598	0	1167
88	A105_03344T0	Z519_10168T0	97.99	548	11	0	1	548	1	548	0	1073
52	A105_04919T0	Z519_02745T0	97.99	448	9	0	1	448	1	448	0	895
3	A105_05056T0	Z519_07947T0	97.99	249	5	0	1	249	1	249	0	510
3	A105_06153T0	Z519_04585T0	97.99	796	16	0	1	796	1	796	0	1597
2	A105_06614T0	Z519_09051T0	97.99	348	6	1	1	347	1	348	0	712
2	A105_07480T0	Z519_06046T0	97.99	648	12	1	1	647	1	648	0	1288
27	A105_07800T0	Z519_07615T0	97.99	695	14	0	1	695	1	695	0	1397
5	A105_09038T0	Z519_05143T0	97.99	896	18	0	1	896	1	896	0	1731
1	A105_09833T0	Z519_10384T0	97.99	149	2	1	1	149	1	148	4.00E-101	289
5	A105_10818T0	Z519_12250T0	97.99	497	10	0	1	497	141	637	0	1005
13	A105_10935T0	Z519_11474T0	97.99	695	14	0	1	695	1	695	0	1414
2	A105_00247T0	Z519_00246T0	98	850	17	0	1	850	1	850	0	1724
156	A105_05828T0	Z519_04904T0	98	551	11	0	1	551	1	551	0	1101
1	A105_06746T0	Z519_06763T0	98	150	3	0	4	153	42	191	6.00E-104	298
44	A105_08364T0	Z519_09576T0	98	649	13	0	1	649	1	649	0	1297
1	A105_09951T0	Z519_04195T0	98	750	15	0	1	750	1	750	0	1427
1	A105_10184T0	Z519_10850T0	98	551	10	1	1	551	1	550	0	1098
1	A105_10274T0	Z519_10941T0	98	400	8	0	1	400	139	538	0	773
1	A105_11756T0	Z519_02924T0	98	300	6	0	1	300	30	329	0	610
154	A105_13155T0	Z519_04368T0	98	549	11	0	1	549	1	549	0	1091
1	A105_00054T0	Z519_00053T0	98.01	352	7	0	1	352	1	352	0	704
31	A105_00573T0	Z519_00584T0	98.01	554	11	0	1	554	1	554	0	1127
6	A105_03042T0	Z519_11995T0	98.01	604	12	0	1	604	1	604	0	1232
2	A105_04005T0	Z519_03302T0	98.01	553	11	0	1	553	1	553	0	1136
1	A105_05794T0	Z519_04939T0	98.01	151	2	1	1	150	1	151	2.00E-99	285
4	A105_06299T0	Z519_10724T0	98.01	302	6	0	1	302	1	302	0	605
14	A105_06538T0	Z519_09127T0	98.01	351	7	0	1	351	1	351	0	717

3	A105_06727T0	Z519_06782T0	98.01	603	12	0	1	603	1	603	0	1227
8	A105_07604T0	Z519_06167T0	98.01	403	8	0	1	403	1	403	0	833
94	A105_09453T0	Z519_01133T0	98.01	553	11	0	1	553	1	553	0	1110
3	A105_09599T0	Z519_01009T0	98.01	201	4	0	5	205	84	284	1.00E-145	410
182	A105_10316T0	Z519_10981T0	98.01	251	5	0	1	251	1	251	0	511
2	A105_12028T0	Z519_05701T0	98.01	151	3	0	1	151	39	189	2.00E-108	310
6	A105_01806T0	Z519_01658T0	98.02	454	9	0	1	454	1	454	0	900
35	A105_03164T0	Z519_10014T0	98.02	808	16	0	3	810	11	818	0	1640
145	A105_03241T0	Z519_10090T0	98.02	505	10	0	1	505	1	505	0	1038
1	A105_03791T0	Z519_03113T0	98.02	455	9	0	1	455	1	455	0	928
2	A105_03845T0	Z519_03163T0	98.02	504	10	0	1	504	1	504	0	1027
7	A105_03978T0	Z519_03276T0	98.02	708	14	0	1	708	1	708	0	1451
128	A105_07247T0	Z519_05825T0	98.02	252	5	0	1	252	1	252	0	504
79	A105_07343T0	Z519_05916T0	98.02	556	11	0	1	556	1	556	0	1119
1	A105_07942T0	Z519_07784T0	98.02	810	16	0	1	810	1	810	0	1659
1	A105_08006T0	Z519_07842T0	98.02	555	11	0	1	555	1	555	0	1129
1	A105_09309T0	Z519_01257T0	98.02	556	11	0	1	556	1	556	0	1116
183	A105_10773T0	Z519_12292T0	98.02	252	5	0	1	252	1	252	5.00E-178	493
105	A105_11627T0	Z519_08668T0	98.02	303	6	0	1	303	1	303	0	615
10	A105_11700T0	Z519_02978T0	98.02	656	13	0	1	656	1	656	0	1287
4	A105_12095T0	Z519_12356T0	98.02	504	10	0	1	504	1	504	0	1040
5	A105_13161T0	Z519_04363T0	98.02	353	7	0	1	353	28	380	0	727
1	A105_00956T0	Z519_00890T0	98.03	356	7	0	1	356	1	356	0	719
15	A105_02494T0	Z519_07027T0	98.03	355	7	0	1	355	1	355	0	712
1	A105_03557T0	Z519_09679T0	98.03	305	6	0	1	305	1	305	0	609
1	A105_04682T0	Z519_02512T0	98.03	963	19	0	1	963	1	963	0	1953
2	A105_05443T0	Z519_08320T0	98.03	407	8	0	1	407	1	407	0	815
1	A105_07727T0	Z519_07542T0	98.03	305	6	0	1	305	1	305	0	626
1	A105_08664T0	Z519_03993T0	98.03	254	5	0	1	254	1	254	1.00E-180	501
8	A105_10098T0	Z519_10286T0	98.03	304	6	0	1	304	1	304	0	617
3	A105_10152T0	Z519_12701T0	98.03	763	15	0	1	763	1	763	0	1540
1	A105_10413T0	Z519_11290T0	98.03	305	6	0	1	305	1	305	0	597
1	A105_11984T0	Z519_05748T0	98.03	407	7	1	1	407	1	406	0	736
88	A105_12196T0	Z519_04553T0	98.03	508	10	0	1	508	1	508	0	1018
1	A105_00118T0	Z519_00119T0	98.04	153	3	0	3	155	31	183	5.00E-107	306

1	A105_02723T0	Z519_07258T0	98.04	611	12	0	6	616	481	1091	0	1243
1	A105_03697T0	Z519_03016T0	98.04	1324	26	0	1	1324	1	1324	0	2694
2	A105_04199T0	Z519_03478T0	98.04	306	6	0	1	306	1	306	0	607
43	A105_06705T0	Z519_08964T0	98.04	510	10	0	1	510	1	510	0	1036
24	A105_09958T0	Z519_04189T0	98.04	561	11	0	1	561	1	561	0	1108
1	A105_11134T0	Z519_08941T0	98.04	509	10	0	1	509	1	509	0	1044
2	A105_11347T0	Z519_02112T0	98.04	459	9	0	7	465	50	508	0	943
4	A105_11362T0	Z519_02096T0	98.04	460	9	0	1	460	1	460	0	931
92	A105_11409T0	Z519_02050T0	98.04	509	10	0	1	509	1	509	0	1033
1	A105_12242T0	Z519_04510T0	98.04	818	16	0	1	818	1	818	0	1639
2	A105_12311T0	Z519_12398T0	98.04	153	3	0	1	153	1	153	7.00E-112	317
82	A105_12729T0	Z519_09785T0	98.04	255	5	0	1	255	1	255	0	518
2	A105_00164T0	Z519_00164T0	98.05	205	2	1	24	226	24	228	1.00E-73	225
2	A105_02533T0	Z519_07063T0	98.05	307	6	0	1	307	1	307	0	614
61	A105_02694T0	Z519_07227T0	98.05	564	9	1	1	562	1	564	0	1142
2	A105_03102T0	Z519_11936T0	98.05	257	5	0	1	257	1	257	0	518
1	A105_04694T0	Z519_02523T0	98.05	307	6	0	1	307	1	307	0	619
13	A105_05246T0	Z519_08118T0	98.05	563	11	0	18	580	18	580	0	1161
29	A105_05569T0	Z519_03682T0	98.05	308	6	0	11	318	101	408	0	617
1	A105_06755T0	Z519_06751T0	98.05	871	16	1	1	870	1	871	0	1776
4	A105_06996T0	Z519_06502T0	98.05	873	17	0	1	873	1	873	0	1781
127	A105_07475T0	Z519_06043T0	98.05	308	6	0	1	308	1	308	0	623
3	A105_08807T0	Z519_03847T0	98.05	308	6	0	1	308	1	308	0	620
1	A105_11271T0	Z519_08807T0	98.05	154	3	0	1	154	1	154	1.00E-106	303
1	A105_00290T0	Z519_00300T0	98.06	258	5	0	1	258	1	258	0	516
66	A105_02298T0	Z519_11678T0	98.06	721	14	0	1	721	1	721	0	1462
1	A105_03163T0	Z519_10013T0	98.06	981	19	0	1	981	1	981	0	1956
4	A105_05154T0	Z519_08045T0	98.06	206	4	0	1	206	1	206	2.00E-151	421
127	A105_05895T0	Z519_04839T0	98.06	516	10	0	1	516	1	516	0	1055
35	A105_07303T0	Z519_05878T0	98.06	775	15	0	1	775	1	775	0	1590
8	A105_08873T0	Z519_03781T0	98.06	464	8	1	1	463	1	464	0	877
9	A105_08940T0	Z519_05043T0	98.06	310	6	0	1	310	1	310	0	627
2	A105_09625T0	Z519_10580T0	98.06	258	5	0	1	258	62	319	0	528
9	A105_10173T0	Z519_12680T0	98.06	671	13	0	33	703	93	763	0	1375
1	A105_10683T0	Z519_09869T0	98.06	206	4	0	1	206	20	225	6.00E-152	424

2	A105_11762T0	Z519_02918T0	98.06	155	3	0	1	155	1	155	1.00E-108	309
2	A105_12564T0	Z519_05482T0	98.06	155	3	0	1	155	1	155	6.00E-107	305
22	A105_13028T0	Z519_04445T0	98.06	1030	20	0	1	1030	1	1030	0	2074
16	A105_00156T0	Z519_00156T0	98.07	466	9	0	3	468	26	491	0	941
48	A105_01104T0	Z519_08379T0	98.07	776	15	0	55	830	27	802	0	1573
1	A105_01253T0	Z519_08519T0	98.07	259	5	0	1	259	1	259	0	517
1	A105_01297T0	Z519_08562T0	98.07	207	4	0	1	207	1	207	3.00E-146	409
1	A105_03705T0	Z519_03024T0	98.07	415	8	0	1	415	1	415	0	820
1	A105_04641T0	Z519_02468T0	98.07	880	17	0	1	880	1	880	0	1778
5	A105_05406T0	Z519_08280T0	98.07	414	8	0	1	414	1	414	0	833
37	A105_08414T0	Z519_05636T0	98.07	363	7	0	1	363	1	363	0	732
3	A105_10086T0	Z519_04248T0	98.07	259	5	0	1	259	1	259	0	521
2	A105_12747T0	Z519_10806T0	98.07	983	19	0	1	983	1	983	0	2020
17	A105_13163T0	Z519_04361T0	98.07	1087	21	0	1	1087	1	1087	0	2212
1	A105_02166T0	Z519_01315T0	98.08	260	5	0	1	260	1	260	0	523
3	A105_02267T0	Z519_11710T0	98.08	989	19	0	1	989	1	989	0	1995
1	A105_03282T0	Z519_10130T0	98.08	521	10	0	1	521	1	521	0	1062
179	A105_04360T0	Z519_02185T0	98.08	260	5	0	1	260	1	260	0	509
89	A105_05221T0	Z519_08095T0	98.08	522	10	0	1	522	1	522	0	1060
9	A105_05498T0	Z519_03614T0	98.08	573	11	0	1	573	1	573	0	1159
15	A105_06599T0	Z519_09065T0	98.08	678	13	0	30	707	1	678	0	1374
7	A105_07365T0	Z519_05937T0	98.08	313	6	0	1	313	1	313	0	629
1	A105_09365T0	Z519_01203T0	98.08	104	2	0	1	104	1	104	4.00E-71	211
5	A105_09555T0	Z519_01041T0	98.08	261	5	0	1	261	1	261	0	535
1	A105_10035T0	Z519_04131T0	98.08	104	2	0	1	104	1	104	6.00E-70	206
151	A105_11390T0	Z519_02067T0	98.08	522	10	0	1	522	1	522	0	1054
151	A105_11689T0	Z519_08606T0	98.08	468	9	0	1	468	88	555	0	956
62	A105_12587T0	Z519_05455T0	98.08	729	14	0	11	739	20	748	0	1475
153	A105_12839T0	Z519_07442T0	98.08	521	10	0	1	521	1	521	0	1035
3	A105_01225T0	Z519_08493T0	98.09	314	6	0	1	314	1	314	0	628
10	A105_03536T0	Z519_09658T0	98.09	366	7	0	12	377	11	376	0	736
1	A105_05037T0	Z519_07928T0	98.09	418	8	0	1	418	1	418	0	831
1	A105_06374T0	Z519_10666T0	98.09	682	13	0	1	682	1	682	0	1391
14	A105_06879T0	Z519_06620T0	98.09	575	11	0	1	575	1	575	0	1145
1	A105_09553T0	Z519_01043T0	98.09	418	8	0	1	418	1	418	0	834

6	A105_00312T0	Z519_00321T0	98.1	420	8	0	1	420	1	420	0	839
24	A105_01113T0	Z519_08387T0	98.1	263	5	0	1	263	1	263	0	528
2	A105_01499T0	Z519_01915T0	98.1	105	2	0	1	105	1	105	2.00E-73	216
15	A105_02790T0	Z519_07322T0	98.1	421	8	0	1	421	1	421	0	853
7	A105_03071T0	Z519_11967T0	98.1	263	5	0	1	263	1	263	0	541
7	A105_04463T0	Z519_02295T0	98.1	684	13	0	1	684	1	684	0	1405
4	A105_05736T0	Z519_11113T0	98.1	263	5	0	1	263	1	263	0	543
4	A105_08047T0	Z519_07882T0	98.1	737	14	0	1	737	1	737	0	1510
2	A105_08149T0	Z519_09373T0	98.1	421	8	0	1	421	1	421	0	859
26	A105_08369T0	Z519_09581T0	98.1	369	7	0	1	369	1	369	0	754
1	A105_09755T0	Z519_10466T0	98.1	525	10	0	1	525	1	525	0	1057
4	A105_11933T0	Z519_02033T0	98.1	420	7	1	1	420	1	419	0	858
61	A105_12537T0	Z519_02868T0	98.1	316	6	0	1	316	1	316	0	634
46	A105_13391T0	Z519_04234T0	98.1	526	10	0	1	526	1	526	0	1080
87	A105_01058T0	Z519_00980T0	98.11	530	10	0	1	530	1	530	0	1080
2	A105_01656T0	Z519_01760T0	98.11	371	7	0	1	371	1	371	0	763
1	A105_02091T0	Z519_01389T0	98.11	264	2	1	1	261	1	264	7.00E-175	486
2	A105_02127T0	Z519_01351T0	98.11	212	4	0	1	212	10	221	2.00E-157	437
136	A105_02313T0	Z519_11662T0	98.11	583	11	0	1	583	1	583	0	1189
5	A105_02575T0	Z519_07105T0	98.11	1165	22	0	1	1165	1	1165	0	2367
1	A105_02703T0	Z519_07240T0	98.11	212	4	0	1	212	1	212	2.00E-151	422
1	A105_02894T0	Z519_07425T0	98.11	212	4	0	1	212	1	212	7.00E-153	426
1	A105_03109T0	Z519_09962T0	98.11	1061	20	0	1	1061	1	1061	0	2130
1	A105_03258T0	Z519_10107T0	98.11	106	2	0	1	106	1	106	2.00E-73	217
7	A105_03280T0	Z519_10128T0	98.11	265	5	0	1	265	1	265	0	531
3	A105_04697T0	Z519_02527T0	98.11	689	13	0	1	689	1	689	0	1378
1	A105_05930T0	Z519_04804T0	98.11	53	1	0	6	58	6	58	5.00E-31	104
55	A105_05975T0	Z519_04759T0	98.11	476	9	0	1	476	1	476	0	966
4	A105_06245T0	Z519_10766T0	98.11	795	14	1	1	795	1	794	0	1535
162	A105_06563T0	Z519_09102T0	98.11	317	6	0	1	317	1	317	0	640
54	A105_07432T0	Z519_06004T0	98.11	318	6	0	1	318	130	447	0	635
10	A105_07442T0	Z519_06011T0	98.11	582	11	0	1	582	1	582	0	1189
1	A105_09637T0	Z519_10567T0	98.11	265	5	0	1	265	1	265	0	522
4	A105_10496T0	Z519_11372T0	98.11	265	5	0	1	265	1	265	0	540
131	A105_11130T0	Z519_08945T0	98.11	529	10	0	1	529	1	529	0	1081

11	A105_11396T0	Z519_02063T0	98.11	581	11	0	1	581	1	581	0	1188
3	A105_12265T0	Z519_04489T0	98.11	528	10	0	1	528	1	528	0	1073
12	A105_12863T0	Z519_07466T0	98.11	370	7	0	1	370	1	370	0	748
4	A105_02256T0	Z519_11723T0	98.12	320	6	0	1	320	1	320	0	650
14	A105_02662T0	Z519_07194T0	98.12	373	7	0	1	373	1	373	0	753
24	A105_05167T0	Z519_08056T0	98.12	584	11	0	1	584	1	584	0	1176
8	A105_06572T0	Z519_09093T0	98.12	1598	30	0	1	1598	1	1598	0	3250
1	A105_09640T0	Z519_10564T0	98.12	640	12	0	1	640	1	640	0	1311
2	A105_11557T0	Z519_11539T0	98.12	691	13	0	1	691	1	691	0	1410
8	A105_13060T0	Z519_12124T0	98.12	373	7	0	1	373	1	373	0	755
1	A105_01141T0	Z519_08411T0	98.13	427	8	0	1	427	1	427	0	868
1	A105_02286T0	Z519_11690T0	98.13	107	2	0	1	107	28	134	5.00E-73	216
2	A105_02480T0	Z519_07014T0	98.13	374	7	0	1	374	1	374	0	755
3	A105_02822T0	Z519_07353T0	98.13	268	5	0	1	268	1	268	0	544
1	A105_03680T0	Z519_02999T0	98.13	267	5	0	1	267	1	267	0	538
5	A105_03999T0	Z519_03297T0	98.13	696	11	1	1	696	1	694	0	1280
2	A105_04062T0	Z519_03339T0	98.13	534	10	0	1	534	1	534	0	1077
1	A105_04288T0	Z519_03569T0	98.13	214	4	0	1	214	158	371	9.00E-148	419
1	A105_04671T0	Z519_02500T0	98.13	428	8	0	1	428	1	428	0	815
68	A105_04926T0	Z519_02751T0	98.13	535	10	0	1	535	1	535	0	1095
1	A105_05057T0	Z519_07948T0	98.13	643	9	1	1	643	1	640	0	1230
20	A105_05402T0	Z519_08276T0	98.13	696	13	0	1	696	1	696	0	1402
43	A105_06261T0	Z519_10752T0	98.13	588	11	0	1	588	1	588	0	1197
2	A105_07757T0	Z519_07571T0	98.13	428	8	0	15	442	17	444	0	865
3	A105_08195T0	Z519_09419T0	98.13	535	10	0	1	535	1	535	0	1097
15	A105_08339T0	Z519_09553T0	98.13	374	7	0	1	374	1	374	0	758
153	A105_10171T0	Z519_12682T0	98.13	536	10	0	1	536	1	536	0	1086
5	A105_12572T0	Z519_05471T0	98.13	1553	29	0	1	1553	1	1553	0	3172
1	A105_12977T0	Z519_04394T0	98.13	534	10	0	1	534	191	724	0	1073
16	A105_01203T0	Z519_08470T0	98.14	537	10	0	1	537	1	537	0	1092
84	A105_01681T0	Z519_01736T0	98.14	485	9	0	1	485	1	485	0	986
1	A105_03582T0	Z519_09706T0	98.14	431	8	0	1	431	1	431	0	875
9	A105_04662T0	Z519_02491T0	98.14	970	18	0	1	970	1	970	0	1974
1	A105_04715T0	Z519_02545T0	98.14	215	4	0	1	215	1	215	4.00E-152	424
16	A105_05790T0	Z519_04943T0	98.14	323	6	0	1	323	1	323	0	668

9	A105_06531T0	Z519_09133T0	98.14	483	9	0	1	483	1	483	0	984
1	A105_06745T0	Z519_06764T0	98.14	161	3	0	1	161	51	211	8.00E-116	329
71	A105_07453T0	Z519_06020T0	98.14	861	16	0	1	861	1	861	0	1741
76	A105_09216T0	Z519_05329T0	98.14	913	15	1	1	911	1	913	0	1774
1	A105_10501T0	Z519_11379T0	98.14	215	4	0	1	215	1	215	5.00E-153	426
1	A105_12212T0	Z519_04540T0	98.14	484	9	0	1	484	1	484	0	971
5	A105_00116T0	Z519_00117T0	98.15	270	5	0	1	270	1	270	0	554
3	A105_01088T0	Z519_08367T0	98.15	325	6	0	1	325	1	325	0	643
97	A105_03498T0	Z519_09622T0	98.15	541	10	0	1	541	1	541	0	1096
1	A105_03819T0	Z519_03138T0	98.15	271	5	0	1	271	1	271	0	557
1	A105_05175T0	Z519_08063T0	98.15	108	2	0	1	108	1	108	2.00E-72	213
2	A105_05699T0	Z519_11151T0	98.15	867	16	0	81	947	1	867	0	1755
78	A105_05894T0	Z519_04840T0	98.15	593	11	0	1	593	1	593	0	1175
1	A105_05924T0	Z519_04810T0	98.15	270	5	0	1	270	1	270	0	555
2	A105_06884T0	Z519_06615T0	98.15	108	2	0	1	108	1	108	3.00E-73	215
1	A105_07157T0	Z519_06344T0	98.15	108	2	0	1	108	1	108	4.00E-74	218
41	A105_07490T0	Z519_06055T0	98.15	701	13	0	1	701	1	701	0	1422
4	A105_07846T0	Z519_07675T0	98.15	595	11	0	1	595	1	595	0	1217
7	A105_10657T0	Z519_09844T0	98.15	704	13	0	1	704	1	704	0	1447
8	A105_11387T0	Z519_02070T0	98.15	108	2	0	1	108	1	108	6.00E-75	219
1	A105_11961T0	Z519_05771T0	98.15	1029	19	0	1	1029	1	1029	0	2079
1	A105_12268T0	Z519_04486T0	98.15	595	11	0	32	626	11	605	0	1212
37	A105_13153T0	Z519_04370T0	98.15	542	9	1	1	542	97	637	0	969
66	A105_02781T0	Z519_07313T0	98.16	597	11	0	1	597	1	597	0	1177
88	A105_11086T0	Z519_06885T0	98.16	488	9	0	1	488	1	488	0	994
1	A105_00056T0	Z519_00055T0	98.17	218	4	0	60	277	59	276	3.00E-159	447
63	A105_00206T0	Z519_00208T0	98.17	600	11	0	1	600	1	600	0	1221
4	A105_00242T0	Z519_00241T0	98.17	1201	22	0	1	1201	1	1201	0	2419
1	A105_00721T0	Z519_00713T0	98.17	109	2	0	1	109	1	109	2.00E-74	219
12	A105_01087T0	Z519_08366T0	98.17	382	7	0	1	382	1	382	0	766
2	A105_02099T0	Z519_01381T0	98.17	219	4	0	1	219	1	219	2.00E-149	417
24	A105_03533T0	Z519_09655T0	98.17	437	8	0	1	437	1	437	0	883
1	A105_03737T0	Z519_03057T0	98.17	493	9	0	1	493	1	493	0	1008
3	A105_04255T0	Z519_03533T0	98.17	602	11	0	1	602	1	602	0	1240
3	A105_05420T0	Z519_08295T0	98.17	656	12	0	1	656	1	656	0	1331

1	A105_05561T0	Z519_03676T0	98.17	109	2	0	1	109	1	109	8.00E-76	222
81	A105_05967T0	Z519_04768T0	98.17	491	9	0	1	491	1	491	0	997
88	A105_07395T0	Z519_05967T0	98.17	547	10	0	1	547	1	547	0	1103
195	A105_07790T0	Z519_07605T0	98.17	273	5	0	1	273	1	273	0	543
99	A105_08728T0	Z519_03930T0	98.17	491	9	0	1	491	1	491	0	1003
1	A105_09011T0	Z519_05116T0	98.17	219	4	0	1	219	1	219	2.00E-155	432
2	A105_10481T0	Z519_11357T0	98.17	873	16	0	1	873	1	873	0	1781
3	A105_11089T0	Z519_06889T0	98.17	273	5	0	1	273	1	273	0	553
2	A105_12787T0	Z519_12800T0	98.17	383	7	0	1	383	1	383	0	752
2	A105_12838T0	Z519_07441T0	98.17	436	8	0	1	436	1	436	0	891
1	A105_00288T0	Z519_00298T0	98.18	330	6	0	1	330	1	330	0	665
34	A105_00648T0	Z519_00647T0	98.18	384	7	0	1	384	1	384	0	771
5	A105_00732T0	Z519_00724T0	98.18	440	8	0	1	440	1	440	0	898
5	A105_00757T0	Z519_00750T0	98.18	495	9	0	1	495	1	495	0	984
1	A105_01799T0	Z519_01665T0	98.18	989	18	0	1	989	5	993	0	2026
1	A105_02106T0	Z519_01374T0	98.18	714	13	0	1	714	1	714	0	1459
1	A105_02546T0	Z519_07077T0	98.18	1100	18	1	1	1100	1	1098	0	2021
159	A105_03383T0	Z519_10204T0	98.18	549	10	0	1	549	1	549	0	1109
1	A105_04221T0	Z519_03501T0	98.18	549	6	2	1	549	1	545	0	1069
1	A105_04257T0	Z519_03535T0	98.18	606	11	0	1	606	1	606	0	1237
1	A105_05913T0	Z519_04821T0	98.18	165	3	0	1	165	1	165	2.00E-117	332
4	A105_05928T0	Z519_04806T0	98.18	329	6	0	1	329	1	329	0	656
16	A105_06256T0	Z519_10757T0	98.18	329	6	0	1	329	1	329	0	664
1	A105_07329T0	Z519_05901T0	98.18	275	5	0	1	275	1	275	0	551
1	A105_08057T0	Z519_07892T0	98.18	275	5	0	1	275	28	302	0	560
1	A105_08738T0	Z519_03920T0	98.18	1261	23	0	1	1261	1	1261	0	2566
4	A105_09100T0	Z519_05210T0	98.18	330	6	0	1	330	1	330	0	667
1	A105_12745T0	Z519_10804T0	98.18	604	11	0	1	604	1	604	0	1198
9	A105_01169T0	Z519_08437T0	98.19	552	10	0	1	552	1	552	0	1122
1	A105_06792T0	Z519_06713T0	98.19	608	11	0	1	608	1	608	0	1212
15	A105_07032T0	Z519_06470T0	98.19	221	4	0	3	223	5	225	1.00E-157	445
5	A105_07143T0	Z519_06358T0	98.19	995	18	0	1	995	1	995	0	2030
1	A105_08215T0	Z519_09437T0	98.19	387	7	0	1	387	1	387	0	775
14	A105_08315T0	Z519_09530T0	98.19	828	15	0	1	828	1	828	0	1659
5	A105_08657T0	Z519_03999T0	98.19	551	10	0	1	551	1	551	0	1125

4	A105_09225T0	Z519_05339T0	98.19	496	9	0	1	496	1	496	0	983
3	A105_10953T0	Z519_11491T0	98.19	443	8	0	1	443	1	443	0	912
40	A105_11608T0	Z519_08688T0	98.19	498	9	0	43	540	1	498	0	984
3	A105_12223T0	Z519_04530T0	98.19	497	9	0	1	497	1	497	0	1019
85	A105_13031T0	Z519_04448T0	98.19	551	10	0	1	551	1	551	0	1107
86	A105_00048T0	Z519_00047T0	98.2	556	10	0	1	556	1	556	0	1116
1	A105_00310T0	Z519_00319T0	98.2	388	7	0	1	388	1	388	0	769
158	A105_00430T0	Z519_00436T0	98.2	500	9	0	1	500	7	506	0	1027
1	A105_01473T0	Z519_11794T0	98.2	779	14	0	1	779	1	779	0	1576
1	A105_01531T0	Z519_01889T0	98.2	278	5	0	1	278	1	278	0	554
8	A105_01701T0	Z519_01721T0	98.2	890	16	0	1	890	1	890	0	1798
130	A105_04920T0	Z519_02746T0	98.2	557	10	0	1	557	1	557	0	1129
7	A105_05049T0	Z519_07940T0	98.2	557	10	0	1	557	1	557	0	1137
15	A105_05605T0	Z519_03713T0	98.2	445	8	0	1	445	1	445	0	903
2	A105_06311T0	Z519_10713T0	98.2	444	8	0	1	444	1	444	0	893
26	A105_08563T0	Z519_04081T0	98.2	557	10	0	1	557	1	557	0	1117
23	A105_11541T0	Z519_11555T0	98.2	557	10	0	1	557	1	557	0	1144
1	A105_12000T0	Z519_05731T0	98.2	388	6	1	1	387	1	388	0	764
14	A105_00537T0	Z519_00544T0	98.21	224	3	1	1	224	1	223	2.00E-162	451
9	A105_01304T0	Z519_08568T0	98.21	2285	41	0	1	2285	15	2299	0	4657
3	A105_02113T0	Z519_01367T0	98.21	279	5	0	1	279	1	279	0	579
1	A105_02278T0	Z519_11698T0	98.21	1512	27	0	1	1512	1	1512	0	3108
3	A105_02712T0	Z519_07249T0	98.21	780	14	0	1	780	1	780	0	1598
3	A105_03435T0	Z519_10257T0	98.21	671	12	0	1	671	1	671	0	1365
1	A105_04415T0	Z519_02247T0	98.21	280	5	0	1	280	1	280	0	516
41	A105_04554T0	Z519_02382T0	98.21	504	9	0	1	504	1	504	0	1017
84	A105_04683T0	Z519_02513T0	98.21	615	11	0	6	620	3	617	0	1218
1	A105_04735T0	Z519_02564T0	98.21	390	7	0	1	390	1	390	0	788
71	A105_06445T0	Z519_10596T0	98.21	502	9	0	1	502	1	502	0	995
2	A105_07206T0	Z519_06294T0	98.21	670	12	0	1	670	1	670	0	1376
1	A105_07402T0	Z519_05974T0	98.21	280	5	0	1	280	1	280	0	566
15	A105_08003T0	Z519_07839T0	98.21	837	15	0	1	837	1	837	0	1704
12	A105_09343T0	Z519_01224T0	98.21	669	12	0	1	669	1	669	0	1373
1	A105_09678T0	Z519_10529T0	98.21	784	14	0	1	784	23	806	0	1610
10	A105_09885T0	Z519_10333T0	98.21	448	8	0	62	509	1	448	0	888

1	A105_10085T0	Z519_04247T0	98.21	504	9	0	1	504	1	504	0	1032
1	A105_11325T0	Z519_02134T0	98.21	168	3	0	8	175	19	186	5.00E-110	314
39	A105_00007T0	Z519_00007T0	98.22	563	9	1	1	563	1	562	0	1095
1	A105_01223T0	Z519_08491T0	98.22	955	16	1	1	955	1	954	0	1799
1	A105_02839T0	Z519_07369T0	98.22	225	4	0	1	225	1	225	9.00E-159	442
16	A105_03055T0	Z519_11982T0	98.22	225	4	0	1	225	1	225	4.00E-141	421
154	A105_03362T0	Z519_10185T0	98.22	505	9	0	1	505	1	505	0	1021
1	A105_04369T0	Z519_02196T0	98.22	338	6	0	1	338	1	338	0	679
98	A105_04918T0	Z519_02744T0	98.22	562	10	0	1	562	1	562	0	1128
106	A105_05097T0	Z519_07987T0	98.22	505	9	0	1	505	1	505	0	1016
1	A105_05230T0	Z519_08104T0	98.22	225	4	0	1	225	1	225	4.00E-165	458
1	A105_05293T0	Z519_08167T0	98.22	393	7	0	1	393	1	393	0	801
4	A105_05676T0	Z519_11173T0	98.22	673	12	0	1	673	1	673	0	1379
2	A105_05694T0	Z519_11156T0	98.22	562	10	0	1	562	1	562	0	1132
1	A105_05779T0	Z519_04958T0	98.22	786	14	0	1	786	1	786	0	1586
1	A105_06737T0	Z519_06773T0	98.22	337	6	0	1	337	1	337	0	672
1	A105_08165T0	Z519_09389T0	98.22	338	6	0	1	338	1	338	0	669
11	A105_09825T0	Z519_10392T0	98.22	281	5	0	1	281	1	281	0	557
1	A105_11974T0	Z519_05758T0	98.22	1123	20	0	1	1123	1	1123	0	2303
123	A105_12284T0	Z519_04470T0	98.22	561	10	0	1	561	1	561	0	1110
1	A105_00271T0	Z519_00280T0	98.23	451	8	0	1	451	1	451	0	916
3	A105_03336T0	Z519_10160T0	98.23	453	8	0	1	453	1	453	0	909
43	A105_04502T0	Z519_02330T0	98.23	508	9	0	1	508	1	508	0	1024
1	A105_04627T0	Z519_02454T0	98.23	962	17	0	1	962	1	962	0	1944
1	A105_06110T0	Z519_04627T0	98.23	395	7	0	1	395	1	395	0	788
96	A105_06391T0	Z519_10650T0	98.23	113	2	0	1	113	190	302	8.00E-77	231
1	A105_06582T0	Z519_09082T0	98.23	283	5	0	1	283	62	344	0	568
1	A105_07726T0	Z519_07541T0	98.23	1302	23	0	1	1302	1	1302	0	2657
90	A105_09648T0	Z519_10556T0	98.23	622	11	0	1	622	1	622	0	1257
22	A105_13329T0	Z519_05004T0	98.23	339	6	0	1	339	1	339	0	686
1	A105_00889T0	Z519_00838T0	98.24	569	10	0	1	569	1	569	0	1138
1	A105_02137T0	Z519_01341T0	98.24	227	4	0	17	243	1	227	8.00E-164	456
8	A105_02241T0	Z519_11738T0	98.24	340	6	0	4	343	24	363	0	689
4	A105_02761T0	Z519_07293T0	98.24	626	11	0	1	626	61	686	0	1270
1	A105_03279T0	Z519_10127T0	98.24	568	10	0	1	568	1	568	0	1160

3	A105_03332T0	Z519_10156T0	98.24	397	7	0	1	397	1	397	0	810
39	A105_04007T0	Z519_03304T0	98.24	454	8	0	1	454	81	534	0	910
130	A105_05643T0	Z519_11204T0	98.24	512	9	0	1	512	1	512	0	1043
14	A105_05774T0	Z519_04963T0	98.24	567	10	0	1	567	1	567	0	1148
89	A105_06678T0	Z519_08991T0	98.24	512	9	0	1	512	1	512	0	1026
15	A105_08760T0	Z519_03897T0	98.24	340	6	0	1	340	1	340	0	691
25	A105_08793T0	Z519_03865T0	98.24	568	10	0	1	568	1	568	0	1142
24	A105_12078T0	Z519_12340T0	98.24	568	10	0	1	568	1	568	0	1162
159	A105_01329T0	Z519_08593T0	98.25	513	9	0	1	513	1	513	0	1052
37	A105_01452T0	Z519_11816T0	98.25	1600	28	0	1	1600	1	1600	0	3284
5	A105_03888T0	Z519_03203T0	98.25	687	11	1	1	687	1	686	0	1383
1	A105_04381T0	Z519_02208T0	98.25	229	4	0	1	229	1	229	5.00E-167	463
1	A105_04863T0	Z519_02687T0	98.25	114	2	0	1	114	1	114	4.00E-75	223
3	A105_05027T0	Z519_07917T0	98.25	629	11	0	1	629	1	629	0	1274
2	A105_05566T0	Z519_03679T0	98.25	1088	18	1	1	1087	1	1088	0	2165
21	A105_06976T0	Z519_06520T0	98.25	285	5	0	1	285	1	285	0	577
1	A105_07156T0	Z519_06345T0	98.25	741	13	0	1	741	1	741	0	1512
1	A105_07257T0	Z519_05836T0	98.25	171	3	0	1	171	1	171	3.00E-120	340
101	A105_07527T0	Z519_06089T0	98.25	573	10	0	1	573	1	573	0	1148
1	A105_08216T0	Z519_09438T0	98.25	114	2	0	1	114	1	114	2.00E-74	219
1	A105_08879T0	Z519_03774T0	98.25	458	8	0	1	458	1	458	0	931
2	A105_09292T0	Z519_01273T0	98.25	285	5	0	1	285	1	285	0	573
1	A105_10531T0	Z519_12613T0	98.25	57	1	0	1	57	18	74	8.00E-36	117
105	A105_10540T0	Z519_12603T0	98.25	572	10	0	1	572	1	572	0	1185
3	A105_10663T0	Z519_09850T0	98.25	572	10	0	1	572	1	572	0	1145
1	A105_10947T0	Z519_11485T0	98.25	229	4	0	1	229	1	229	2.00E-170	472
2	A105_11232T0	Z519_08848T0	98.25	515	9	0	1	515	1	515	0	1008
19	A105_11685T0	Z519_08610T0	98.25	285	5	0	1	285	1	285	0	577
2	A105_12037T0	Z519_05692T0	98.25	114	2	0	1	114	1	114	6.00E-80	233
2	A105_12855T0	Z519_07459T0	98.25	286	5	0	1	286	1	286	0	581
5	A105_13086T0	Z519_11219T0	98.25	744	13	0	1	744	1	744	0	1525
88	A105_00747T0	Z519_00740T0	98.26	518	9	0	1	518	1	518	0	1054
3	A105_01521T0	Z519_01898T0	98.26	345	6	0	18	362	20	364	0	701
39	A105_02301T0	Z519_11675T0	98.26	576	10	0	1	576	1	576	0	1153
88	A105_02583T0	Z519_07113T0	98.26	518	9	0	1	518	1	518	0	1052

1	A105_02756T0	Z519_07288T0	98.26	344	6	0	1	344	1	344	0	704
1	A105_03132T0	Z519_09985T0	98.26	288	5	0	1	288	1	288	0	564
29	A105_06323T0	Z519_10702T0	98.26	345	6	0	1	345	1	345	0	701
35	A105_07276T0	Z519_05854T0	98.26	459	8	0	31	489	1	459	0	939
164	A105_07699T0	Z519_07521T0	98.26	516	9	0	1	516	1	516	0	1026
2	A105_07922T0	Z519_07760T0	98.26	345	6	0	1	345	1	345	0	705
2	A105_08048T0	Z519_07883T0	98.26	459	8	0	1	459	1	459	0	934
1	A105_08174T0	Z519_09398T0	98.26	403	7	0	1	403	1	403	0	805
7	A105_08352T0	Z519_09566T0	98.26	460	8	0	1	460	1	460	0	944
1	A105_09677T0	Z519_10530T0	98.26	344	6	0	9	352	11	354	0	682
1	A105_11220T0	Z519_08860T0	98.26	230	4	0	1	230	1	230	3.00E-164	456
19	A105_12613T0	Z519_05428T0	98.26	288	5	0	1	288	252	539	0	592
103	A105_12722T0	Z519_09791T0	98.26	518	9	0	1	518	1	518	0	1063
79	A105_12837T0	Z519_07440T0	98.26	748	13	0	1	748	1	748	0	1528
1	A105_00241T0	Z519_00240T0	98.27	231	4	0	1	231	1	231	1.00E-164	457
1	A105_00329T0	Z519_00338T0	98.27	231	4	0	1	231	1	231	3.00E-167	464
5	A105_00669T0	Z519_00664T0	98.27	462	8	0	1	462	1	462	0	945
6	A105_00756T0	Z519_00749T0	98.27	404	7	0	1	404	1	404	0	805
1	A105_02074T0	Z519_01404T0	98.27	2652	46	0	1	2652	1	2652	0	5413
1	A105_03494T0	Z519_09618T0	98.27	579	10	0	1	579	1	579	0	1181
2	A105_04466T0	Z519_02298T0	98.27	404	7	0	1	404	1	404	0	822
2	A105_04763T0	Z519_02590T0	98.27	347	6	0	1	347	47	393	0	705
3	A105_07190T0	Z519_06310T0	98.27	347	6	0	1	347	1	347	0	702
90	A105_07192T0	Z519_06308T0	98.27	519	9	0	1	519	1	519	0	1052
1	A105_12076T0	Z519_12338T0	98.27	346	5	1	1	346	1	345	0	702
56	A105_00165T0	Z519_00165T0	98.28	698	12	0	1	698	1	698	0	1417
23	A105_00318T0	Z519_00327T0	98.28	232	4	0	4	235	5	236	1.00E-168	468
2	A105_01268T0	Z519_08534T0	98.28	349	6	0	1	349	1	349	0	707
40	A105_01807T0	Z519_01657T0	98.28	522	9	0	1	522	1	522	0	1029
1	A105_01902T0	Z519_01563T0	98.28	232	4	0	1	232	1	232	2.00E-169	471
6	A105_02391T0	Z519_06921T0	98.28	408	7	0	1	408	1	408	0	828
1	A105_03912T0	Z519_03226T0	98.28	408	7	0	1	408	1	408	0	811
2	A105_04168T0	Z519_03446T0	98.28	406	7	0	1	406	1	406	0	806
57	A105_04450T0	Z519_02282T0	98.28	580	10	0	1	580	1	580	0	1184
10	A105_05836T0	Z519_04896T0	98.28	407	7	0	1	407	1	407	0	818

2	A105_05852T0	Z519_04881T0	98.28	233	4	0	1	233	1	233	2.00E-173	480
6	A105_05996T0	Z519_04740T0	98.28	524	9	0	1	524	1	524	0	1058
4	A105_06137T0	Z519_04600T0	98.28	522	9	0	1	522	1	522	0	1060
1	A105_06164T0	Z519_04576T0	98.28	116	2	0	1	116	127	242	3.00E-78	236
35	A105_07627T0	Z519_06190T0	98.28	348	6	0	1	348	1	348	0	706
1	A105_09006T0	Z519_05111T0	98.28	233	4	0	1	233	1	233	8.00E-171	473
89	A105_10099T0	Z519_10285T0	98.28	465	8	0	1	465	20	484	0	922
8	A105_10636T0	Z519_12094T0	98.28	291	5	0	1	291	1	291	0	593
28	A105_10978T0	Z519_11511T0	98.28	348	6	0	1	348	1	348	0	698
1	A105_11295T0	Z519_02145T0	98.28	291	5	0	1	291	1	291	0	589
11	A105_11629T0	Z519_08666T0	98.28	1103	19	0	1	1103	1	1103	0	2222
3	A105_12004T0	Z519_05725T0	98.28	233	4	0	1	233	49	281	4.00E-174	483
7	A105_12093T0	Z519_12354T0	98.28	583	10	0	1	583	1	583	0	1165
19	A105_12167T0	Z519_09285T0	98.28	407	7	0	1	407	1	407	0	827
39	A105_13353T0	Z519_09307T0	98.28	523	9	0	1	523	1	523	0	1035
1	A105_00161T0	Z519_00161T0	98.29	525	9	0	1	525	1	525	0	1071
7	A105_01207T0	Z519_08474T0	98.29	2166	37	0	1	2166	1	2166	0	4424
1	A105_01267T0	Z519_08533T0	98.29	292	3	1	19	310	19	308	0	587
2	A105_01978T0	Z519_01481T0	98.29	468	8	0	1	468	1	468	0	950
3	A105_02085T0	Z519_01394T0	98.29	234	4	0	14	247	16	249	9.00E-167	464
3	A105_03006T0	Z519_12023T0	98.29	410	7	0	1	410	1	410	0	832
1	A105_03100T0	Z519_11938T0	98.29	117	2	0	1	117	1	117	2.00E-79	232
1	A105_03490T0	Z519_09614T0	98.29	1348	23	0	15	1362	1	1348	0	2732
2	A105_03803T0	Z519_03124T0	98.29	175	3	0	1	175	1	175	9.00E-124	351
8	A105_06668T0	Z519_09001T0	98.29	409	7	0	1	409	1	409	0	829
2	A105_08033T0	Z519_07870T0	98.29	469	8	0	1	469	1	469	0	957
1	A105_08693T0	Z519_03966T0	98.29	117	2	0	358	474	358	474	4.00E-58	201
1	A105_10696T0	Z519_09882T0	98.29	527	9	0	1	527	1	527	0	1087
6	A105_10892T0	Z519_11431T0	98.29	585	10	0	1	585	1	585	0	1199
2	A105_12811T0	Z519_12778T0	98.29	468	8	0	1	468	1	468	0	949
12	A105_13237T0	Z519_12523T0	98.29	410	7	0	1	410	1	410	0	833
3	A105_08123T0	Z519_09346T0	98.3	411	7	0	1	411	1	411	0	827
7	A105_08214T0	Z519_09436T0	98.3	530	9	0	1	530	1	530	0	1070
2	A105_09261T0	Z519_05369T0	98.3	235	4	0	1	235	79	313	2.00E-159	449
41	A105_09955T0	Z519_04192T0	98.3	529	9	0	1	529	11	539	0	1050

2	A105_10487T0	Z519_11363T0	98.3	352	6	0	1	352	1	352	0	721
3	A105_00092T0	Z519_00091T0	98.31	1245	11	1	1	1245	1	1235	0	2514
1	A105_01354T0	Z519_11915T0	98.31	177	3	0	1	177	1	177	5.00E-131	367
16	A105_01498T0	Z519_01916T0	98.31	1124	19	0	1	1124	1	1124	0	2303
4	A105_01856T0	Z519_01608T0	98.31	356	6	0	1	356	1	356	0	733
55	A105_03122T0	Z519_09976T0	98.31	1180	20	0	1	1180	1	1180	0	2430
1	A105_03463T0	Z519_09588T0	98.31	178	3	0	1	178	1	178	3.00E-122	345
41	A105_03639T0	Z519_09768T0	98.31	534	9	0	1	534	1	534	0	1089
1	A105_03813T0	Z519_03133T0	98.31	533	9	0	1	533	1	533	0	1080
1	A105_03960T0	Z519_03259T0	98.31	354	6	0	1	354	1	354	0	699
6	A105_04312T0	Z519_03590T0	98.31	828	11	1	1	825	1	828	0	1668
18	A105_05439T0	Z519_08316T0	98.31	356	6	0	1	356	1	356	0	721
1	A105_06446T0	Z519_10595T0	98.31	591	10	0	1	591	1	591	0	1176
159	A105_06627T0	Z519_09038T0	98.31	532	9	0	1	532	1	532	0	1083
1	A105_06798T0	Z519_06705T0	98.31	415	6	1	1	414	1	415	0	847
1	A105_07413T0	Z519_05985T0	98.31	295	5	0	1	295	1	295	0	596
4	A105_07658T0	Z519_06223T0	98.31	355	6	0	1	355	1	355	0	712
1	A105_08438T0	Z519_05613T0	98.31	1534	26	0	63	1596	1	1534	0	3048
126	A105_08527T0	Z519_05525T0	98.31	296	5	0	1	296	1	296	0	592
1	A105_08769T0	Z519_03887T0	98.31	236	4	0	1	236	1	236	6.00E-170	471
156	A105_08997T0	Z519_05102T0	98.31	532	9	0	1	532	1	532	0	1077
2	A105_09076T0	Z519_05187T0	98.31	355	6	0	1	355	1	355	0	723
1	A105_09262T0	Z519_05369T0	98.31	59	1	0	1	59	1	59	2.00E-36	125
14	A105_09443T0	Z519_01143T0	98.31	237	4	0	1	237	162	398	9.00E-176	492
1	A105_10529T0	Z519_12615T0	98.31	828	14	0	1	828	37	864	0	1648
55	A105_11192T0	Z519_08890T0	98.31	354	6	0	1	354	1	354	0	712
4	A105_11389T0	Z519_02068T0	98.31	473	8	0	1	473	1	473	0	979
147	A105_11731T0	Z519_02949T0	98.31	531	9	0	1	531	1	531	0	1073
1	A105_12379T0	Z519_12464T0	98.31	118	2	0	1	118	172	289	9.00E-72	219
4	A105_12394T0	Z519_06281T0	98.31	413	7	0	1	413	1	413	0	831
5	A105_12508T0	Z519_02841T0	98.31	356	6	0	1	356	1	356	0	724
3	A105_12692T0	Z519_09816T0	98.31	236	4	0	1	236	9	244	3.00E-171	474
2	A105_01827T0	Z519_01637T0	98.32	715	12	0	1	715	1	715	0	1447
4	A105_02046T0	Z519_01410T0	98.32	476	8	0	1	476	17	492	0	948
2	A105_04551T0	Z519_02379T0	98.32	179	3	0	1	179	1	179	4.00E-132	370

2	A105_05338T0	Z519_08211T0	98.32	475	8	0	1	475	19	493	0	969
2	A105_05438T0	Z519_08315T0	98.32	358	6	0	45	402	1	358	0	736
21	A105_07396T0	Z519_05968T0	98.32	535	9	0	1	535	1	535	0	1086
39	A105_07441T0	Z519_06010T0	98.32	477	8	0	1	477	1	477	0	973
3	A105_07765T0	Z519_07578T0	98.32	594	10	0	1	594	1	594	0	1188
1	A105_00452T0	Z519_00459T0	98.33	539	9	0	1	539	1	539	0	1103
2	A105_01834T0	Z519_01628T0	98.33	718	12	0	1	718	1	718	0	1469
12	A105_03640T0	Z519_09769T0	98.33	418	7	0	1	418	1	418	0	848
1	A105_03744T0	Z519_03066T0	98.33	598	10	0	1	598	1	598	0	1228
153	A105_04093T0	Z519_03366T0	98.33	539	9	0	1	539	1	539	0	1083
1	A105_05173T0	Z519_08061T0	98.33	418	7	0	1	418	1	418	0	838
15	A105_06524T0	Z519_09141T0	98.33	540	9	0	1	540	1	540	0	1077
1	A105_06573T0	Z519_09092T0	98.33	598	9	1	1	598	1	597	0	1163
2	A105_07014T0	Z519_06487T0	98.33	418	7	0	1	418	1	418	0	854
152	A105_07294T0	Z519_05870T0	98.33	299	5	0	1	299	1	299	0	605
1	A105_08425T0	Z519_05625T0	98.33	180	3	0	1	180	1	180	9.00E-131	367
25	A105_08663T0	Z519_03994T0	98.33	657	11	0	1	657	71	727	0	1347
1	A105_10036T0	Z519_04130T0	98.33	240	4	0	1	240	1	240	1.00E-172	478
14	A105_11076T0	Z519_06876T0	98.33	299	5	0	1	299	1	299	0	597
3	A105_11292T0	Z519_02148T0	98.33	717	12	0	1	717	1	717	0	1447
2	A105_11999T0	Z519_05732T0	98.33	720	12	0	1	720	1	720	0	1454
1	A105_00080T0	Z519_00079T0	98.34	1809	29	1	1	1809	1	1808	0	3414
4	A105_00492T0	Z519_00497T0	98.34	302	5	0	1	302	1	302	0	605
1	A105_02094T0	Z519_01385T0	98.34	362	6	0	1	362	1	362	0	744
2	A105_03187T0	Z519_10038T0	98.34	361	6	0	1	361	1	361	0	746
1	A105_03419T0	Z519_10241T0	98.34	481	8	0	1	481	1	481	0	983
5	A105_03434T0	Z519_10256T0	98.34	541	9	0	1	541	1	541	0	1113
1	A105_04531T0	Z519_02358T0	98.34	362	6	0	1	362	1	362	0	736
15	A105_04676T0	Z519_02505T0	98.34	482	8	0	1	482	1	482	0	996
1	A105_04807T0	Z519_02633T0	98.34	482	8	0	1	482	1	482	0	959
1	A105_05994T0	Z519_04742T0	98.34	482	8	0	1	482	1	482	0	982
7	A105_06015T0	Z519_04721T0	98.34	542	8	1	1	542	1	541	0	1095
1	A105_06284T0	Z519_10738T0	98.34	421	7	0	1	421	1	421	0	858
16	A105_06589T0	Z519_09075T0	98.34	724	12	0	1	724	1	724	0	1472
2	A105_08159T0	Z519_09383T0	98.34	1448	23	1	1	1448	1	1447	0	2926

5	A105_08703T0	Z519_03956T0	98.34	604	9	1	1	604	1	603	0	1158
1	A105_09509T0	Z519_01081T0	98.34	181	3	0	1	181	1	181	3.00E-127	358
2	A105_00163T0	Z519_00163T0	98.35	484	8	0	7	490	49	532	0	988
1	A105_01629T0	Z519_01788T0	98.35	242	4	0	1	242	1	242	7.00E-171	474
14	A105_02658T0	Z519_07190T0	98.35	485	8	0	1	485	1	485	0	970
1	A105_02737T0	Z519_07270T0	98.35	544	9	0	1	544	1	544	0	1119
1	A105_03073T0	Z519_11965T0	98.35	848	14	0	1	848	1	848	0	1728
3	A105_03725T0	Z519_03045T0	98.35	484	8	0	1	484	1	484	0	988
2	A105_04308T0	Z519_03587T0	98.35	423	7	0	1	423	477	899	0	855
1	A105_05312T0	Z519_08187T0	98.35	182	3	0	1	182	1	182	1.00E-129	365
2	A105_05357T0	Z519_08231T0	98.35	787	12	1	1	786	1	787	0	1563
2	A105_06351T0	Z519_10688T0	98.35	303	5	0	1	303	1	303	0	618
5	A105_07128T0	Z519_06373T0	98.35	423	7	0	1	423	1	423	0	852
1	A105_07218T0	Z519_05796T0	98.35	364	6	0	1	364	1	364	0	733
1	A105_07446T0	Z519_06015T0	98.35	242	4	0	1	242	1	242	6.00E-178	492
7	A105_07539T0	Z519_06102T0	98.35	726	12	0	1	726	1	726	0	1456
1	A105_10888T0	Z519_11427T0	98.35	242	4	0	1	242	1	242	9.00E-175	484
5	A105_11447T0	Z519_08726T0	98.35	425	7	0	1	425	1	425	0	874
76	A105_11732T0	Z519_02948T0	98.35	606	10	0	1	606	1	606	0	1207
72	A105_00381T0	Z519_00384T0	98.36	855	14	0	27	881	386	1240	0	1723
1	A105_00891T0	Z519_00839T0	98.36	305	5	0	1	305	1	305	0	615
5	A105_02689T0	Z519_07222T0	98.36	609	10	0	1	609	1	609	0	1247
4	A105_02750T0	Z519_07283T0	98.36	183	3	0	1	183	1	183	2.00E-134	376
13	A105_02799T0	Z519_07331T0	98.36	978	16	0	1	978	1	978	0	1986
1	A105_04059T0	Z519_03336T0	98.36	365	6	0	1	365	1	365	0	739
1	A105_04137T0	Z519_03417T0	98.36	1035	17	0	1	1035	1	1035	0	2098
4	A105_06754T0	Z519_06752T0	98.36	795	13	0	1	795	1	795	0	1616
2	A105_08840T0	Z519_03813T0	98.36	428	7	0	1	428	1	428	0	880
1	A105_10119T0	Z519_04268T0	98.36	61	1	0	1	61	17	77	3.00E-37	121
1	A105_10150T0	Z519_04301T0	98.36	305	5	0	1	305	1	305	0	628
21	A105_10546T0	Z519_12597T0	98.36	183	3	0	1	183	1	183	2.00E-133	374
4	A105_00664T0	Z519_00659T0	98.37	612	10	0	1	612	1	612	0	1259
1	A105_01356T0	Z519_11913T0	98.37	857	14	0	1	857	34	890	0	1738
5	A105_01879T0	Z519_01585T0	98.37	1042	17	0	1	1042	1	1042	0	2084
5	A105_03188T0	Z519_10039T0	98.37	306	5	0	1	306	1	306	0	633

32	A105_05283T0	Z519_08157T0	98.37	551	9	0	1	551	1	551	0	1115
97	A105_07280T0	Z519_05859T0	98.37	675	11	0	1	675	1	675	0	1386
3	A105_08162T0	Z519_09386T0	98.37	614	10	0	1	614	1	614	0	1255
116	A105_10060T0	Z519_04111T0	98.37	245	4	0	15	259	23	267	2.00E-179	497
16	A105_10752T0	Z519_09940T0	98.37	306	5	0	1	306	1	306	0	620
8	A105_00503T0	Z519_00509T0	98.38	800	13	0	1	800	1	800	0	1616
8	A105_02760T0	Z519_07292T0	98.38	1233	20	0	1	1233	1	1233	0	2541
1	A105_03519T0	Z519_09642T0	98.38	1233	20	0	1	1233	1	1233	0	2498
2	A105_03996T0	Z519_03294T0	98.38	308	5	0	1	308	1	308	0	618
3	A105_04729T0	Z519_02559T0	98.38	495	8	0	1	495	1	495	0	997
6	A105_05071T0	Z519_07961T0	98.38	678	11	0	1	678	1	678	0	1363
11	A105_05888T0	Z519_04846T0	98.38	370	6	0	1	370	1	370	0	755
10	A105_06292T0	Z519_10730T0	98.38	247	4	0	1	247	1	247	1.00E-179	496
9	A105_06352T0	Z519_10687T0	98.38	495	8	0	1	495	1	495	0	1010
1	A105_07671T0	Z519_06235T0	98.38	1170	19	0	1	1170	1	1170	0	2375
20	A105_07788T0	Z519_07603T0	98.38	987	16	0	1	987	1	987	0	1986
5	A105_08810T0	Z519_03844T0	98.38	309	5	0	1	309	1	309	0	628
6	A105_10554T0	Z519_12589T0	98.38	431	7	0	1	431	1	431	0	885
3	A105_10908T0	Z519_11448T0	98.38	1108	18	0	1	1108	1	1108	0	2282
3	A105_11947T0	Z519_05786T0	98.38	431	7	0	1	431	1	431	0	882
21	A105_13085T0	Z519_11218T0	98.38	616	10	0	1	616	1	616	0	1245
19	A105_01653T0	Z519_01763T0	98.39	496	8	0	1	496	1	496	0	1025
2	A105_02071T0	Z519_01407T0	98.39	435	7	0	1	435	1	435	0	887
1	A105_03302T0	Z519_10150T0	98.39	186	3	0	1	186	1	186	7.00E-136	380
6	A105_03355T0	Z519_10178T0	98.39	869	14	0	1	869	1	869	0	1796
90	A105_04513T0	Z519_02340T0	98.39	496	8	0	1	496	1	496	0	1013
1	A105_04876T0	Z519_02700T0	98.39	434	7	0	1	434	1	434	0	896
1	A105_05555T0	Z519_03670T0	98.39	248	4	0	1	248	1	248	0	511
2	A105_06375T0	Z519_10665T0	98.39	746	12	0	1	746	1	746	0	1510
1	A105_06598T0	Z519_09066T0	98.39	373	6	0	1	373	1	373	0	776
2	A105_08753T0	Z519_03903T0	98.39	620	10	0	1	620	1	620	0	1273
2	A105_10361T0	Z519_11035T0	98.39	249	4	0	1	249	1	249	0	511
1	A105_10506T0	Z519_11384T0	98.39	62	1	0	1	62	1	62	5.00E-38	122
2	A105_00391T0	Z519_00393T0	98.4	561	9	0	1	561	1	561	0	1157
18	A105_00471T0	Z519_00478T0	98.4	501	8	0	1	501	1	501	0	1014

16	A105_00854T0	Z519_00802T0	98.4	1372	18	1	1	1368	1	1372	0	2796
86	A105_01063T0	Z519_00985T0	98.4	562	9	0	1	562	1	562	0	1144
2	A105_02336T0	Z519_11638T0	98.4	562	9	0	1	562	1	562	0	1103
24	A105_02943T0	Z519_12083T0	98.4	437	7	0	1	437	1	437	0	899
5	A105_03535T0	Z519_09657T0	98.4	810	13	0	1	810	1	810	0	1662
1	A105_06497T0	Z519_09167T0	98.4	188	3	0	1	188	1	188	3.00E-137	384
11	A105_07593T0	Z519_06156T0	98.4	376	6	0	1	376	1	376	0	765
1	A105_08112T0	Z519_09336T0	98.4	688	11	0	1	688	1	688	0	1390
14	A105_09067T0	Z519_05178T0	98.4	876	13	1	1	876	1	875	0	1726
14	A105_09136T0	Z519_05246T0	98.4	625	10	0	1	625	1	625	0	1263
17	A105_09265T0	Z519_05372T0	98.4	499	8	0	1	499	1	499	0	1006
113	A105_09294T0	Z519_01271T0	98.4	250	4	0	1	250	1	250	0	504
1	A105_09685T0	Z519_10522T0	98.4	940	15	0	1	940	1	940	0	1894
5	A105_10410T0	Z519_11287T0	98.4	374	6	0	1	374	1	374	0	769
4	A105_10655T0	Z519_09842T0	98.4	501	8	0	1	501	1	501	0	1023
155	A105_10971T0	Z519_11505T0	98.4	563	9	0	1	563	1	563	0	1134
6	A105_11249T0	Z519_08829T0	98.4	312	5	0	1	312	105	416	0	639
95	A105_11334T0	Z519_02125T0	98.4	564	9	0	1	564	187	750	0	1170
1	A105_11401T0	Z519_02058T0	98.4	438	7	0	1	438	1	438	0	899
9	A105_12164T0	Z519_09281T0	98.4	187	3	0	1	187	1	187	5.00E-131	368
3	A105_00171T0	Z519_00171T0	98.41	878	14	0	60	937	140	1017	0	1774
1	A105_00254T0	Z519_00254T0	98.41	315	5	0	1	315	1	315	0	619
163	A105_00408T0	Z519_00409T0	98.41	252	4	0	1	252	1	252	4.00E-179	496
1	A105_00515T0	Z519_00522T0	98.41	189	3	0	1	189	1	189	2.00E-136	384
24	A105_01219T0	Z519_08487T0	98.41	627	7	1	1	627	1	624	0	1274
14	A105_03740T0	Z519_03060T0	98.41	503	8	0	1	503	1	503	0	1013
26	A105_05938T0	Z519_04796T0	98.41	567	9	0	1	567	1	567	0	1130
1	A105_06791T0	Z519_06714T0	98.41	878	14	0	1	878	1	878	0	1772
1	A105_08001T0	Z519_07837T0	98.41	314	5	0	1	314	1	314	0	609
30	A105_08052T0	Z519_07887T0	98.41	566	5	1	1	566	1	562	0	1126
1	A105_08252T0	Z519_09474T0	98.41	189	3	0	1	189	1	189	1.00E-135	380
1	A105_08420T0	Z519_05630T0	98.41	1070	17	0	1	1070	39	1108	0	2137
11	A105_09092T0	Z519_05202T0	98.41	315	5	0	1	315	1	315	0	637
18	A105_12186T0	Z519_04563T0	98.41	754	12	0	1	754	1	754	0	1539
1	A105_12203T0	Z519_04548T0	98.41	314	5	0	1	314	1	314	0	621

160	A105_13189T0	Z519_04333T0	98.41	502	8	0	1	502	1	502	0	1012
1	A105_13216T0	Z519_12501T0	98.41	189	3	0	1	189	1	189	5.00E-137	384
1	A105_01094T0	Z519_08373T0	98.42	507	8	0	1	507	1	507	0	1020
3	A105_01898T0	Z519_01568T0	98.42	505	8	0	1	505	1	505	0	1034
6	A105_02263T0	Z519_11714T0	98.42	1264	20	0	1	1264	1	1264	0	2576
1	A105_02874T0	Z519_07405T0	98.42	695	11	0	1	695	1	695	0	1407
2	A105_03207T0	Z519_10057T0	98.42	948	15	0	1	948	1	948	0	1922
1	A105_05524T0	Z519_03640T0	98.42	442	7	0	1	442	1	442	0	893
51	A105_05940T0	Z519_04794T0	98.42	379	6	0	1	379	1	379	0	761
25	A105_08247T0	Z519_09468T0	98.42	570	9	0	1	570	1	570	0	1132
1	A105_08384T0	Z519_05660T0	98.42	379	6	0	1	379	1	379	0	779
113	A105_09063T0	Z519_05174T0	98.42	569	9	0	1	569	1	569	0	1165
7	A105_09144T0	Z519_05254T0	98.42	761	12	0	1	761	1	761	0	1551
102	A105_09178T0	Z519_05293T0	98.42	569	9	0	1	569	394	962	0	1180
158	A105_10612T0	Z519_11105T0	98.42	506	8	0	1	506	1	506	0	1019
32	A105_10982T0	Z519_11515T0	98.42	505	8	0	1	505	35	539	0	1029
25	A105_00388T0	Z519_00390T0	98.43	447	7	0	1	447	1	447	0	873
170	A105_01460T0	Z519_11808T0	98.43	254	4	0	1	254	1	254	0	504
5	A105_01692T0	Z519_01728T0	98.43	191	3	0	1	191	1	191	2.00E-140	392
89	A105_02774T0	Z519_07306T0	98.43	1977	31	0	1	1977	1	1977	0	3984
13	A105_02846T0	Z519_07376T0	98.43	319	5	0	1	319	1	319	0	649
1	A105_05886T0	Z519_04848T0	98.43	318	5	0	1	318	1	318	0	640
6	A105_06947T0	Z519_06550T0	98.43	511	8	0	2	512	28	538	0	1042
38	A105_07986T0	Z519_07822T0	98.43	957	15	0	1	957	1	957	0	1953
90	A105_08813T0	Z519_03841T0	98.43	510	8	0	1	510	1	510	0	1025
4	A105_09839T0	Z519_10378T0	98.43	127	2	0	1	127	1	127	1.00E-88	256
17	A105_10144T0	Z519_04295T0	98.43	445	7	0	1	445	1	445	0	914
68	A105_10187T0	Z519_10853T0	98.43	637	10	0	1	637	1	637	0	1306
153	A105_10256T0	Z519_10921T0	98.43	572	9	0	1	572	1	572	0	1153
1	A105_11359T0	Z519_02099T0	98.43	892	14	0	1	892	1	892	0	1816
1	A105_11654T0	Z519_08645T0	98.43	635	10	0	1	635	1	635	0	1273
9	A105_13356T0	Z519_09303T0	98.43	318	5	0	1	318	1	318	0	663
1	A105_00328T0	Z519_00337T0	98.44	128	2	0	1	128	157	284	1.00E-87	259
1	A105_01324T0	Z519_08588T0	98.44	257	4	0	1	257	1	257	0	512
21	A105_05329T0	Z519_08203T0	98.44	320	5	0	15	334	42	361	0	658

8	A105_06054T0	Z519_04685T0	98.44	320	5	0	1	320	1	320	0	646
1	A105_09235T0	Z519_05345T0	98.44	256	4	0	1	256	1	256	0	515
1	A105_09320T0	Z519_01245T0	98.44	256	4	0	1	256	21	276	0	519
1	A105_09540T0	Z519_01057T0	98.44	320	5	0	1	320	1	320	0	650
92	A105_10123T0	Z519_04273T0	98.44	642	10	0	1	642	1	642	0	1318
1	A105_10411T0	Z519_11288T0	98.44	64	1	0	4	67	78	141	7.00E-39	127
2	A105_10560T0	Z519_12584T0	98.44	192	3	0	1	192	1	192	6.00E-138	386
14	A105_10823T0	Z519_12245T0	98.44	1541	24	0	1	1541	1	1541	0	3173
25	A105_11438T0	Z519_08717T0	98.44	640	10	0	1	640	1	640	0	1318
8	A105_03008T0	Z519_12021T0	98.45	323	5	0	1	323	1	323	0	661
3	A105_05427T0	Z519_08302T0	98.45	451	7	0	1	451	1	451	0	917
10	A105_07052T0	Z519_06450T0	98.45	258	4	0	1	258	1	258	0	533
1	A105_07203T0	Z519_06297T0	98.45	1031	16	0	1	1031	1	1031	0	2037
197	A105_07469T0	Z519_06036T0	98.45	258	4	0	1	258	1	258	0	512
42	A105_08973T0	Z519_05076T0	98.45	323	5	0	6	328	1	323	0	644
4	A105_09445T0	Z519_01141T0	98.45	1030	16	0	1	1030	1	1030	0	2100
2	A105_09896T0	Z519_10321T0	98.45	1483	23	0	1	1483	1	1483	0	3019
3	A105_11969T0	Z519_05763T0	98.45	194	3	0	1	194	1	194	3.00E-139	390
29	A105_00557T0	Z519_00568T0	98.46	520	8	0	1	520	1	520	0	1080
7	A105_00921T0	Z519_00856T0	98.46	325	5	0	1	325	1	325	0	671
1	A105_02621T0	Z519_07149T0	98.46	1107	17	0	1	1107	1	1107	0	2204
48	A105_03979T0	Z519_03277T0	98.46	584	9	0	1	584	1	584	0	1188
17	A105_04834T0	Z519_02659T0	98.46	455	7	0	1	455	1	455	0	923
1	A105_04951T0	Z519_02775T0	98.46	260	4	0	1	260	1	260	0	529
2	A105_05024T0	Z519_07912T0	98.46	325	5	0	1	325	1	325	0	645
26	A105_08614T0	Z519_04035T0	98.46	324	5	0	1	324	1	324	0	660
75	A105_09201T0	Z519_05315T0	98.46	518	8	0	1	518	1	518	0	1067
33	A105_09457T0	Z519_01129T0	98.46	456	7	0	1	456	1	456	0	942
16	A105_09761T0	Z519_10461T0	98.46	520	8	0	1	520	1	520	0	1069
3	A105_10136T0	Z519_04287T0	98.46	259	4	0	1	259	1	259	0	531
15	A105_11187T0	Z519_08895T0	98.46	324	5	0	1	324	1	324	0	667
1	A105_11484T0	Z519_08763T0	98.46	195	3	0	1	195	1	195	2.00E-127	395
1	A105_11908T0	Z519_02011T0	98.46	65	1	0	1	65	1	65	1.00E-39	127
3	A105_12638T0	Z519_05399T0	98.46	649	10	0	1	649	1	649	0	1269
3	A105_13024T0	Z519_04441T0	98.46	324	5	0	1	324	1	324	0	652

5	A105_02038T0	Z519_01418T0	98.47	590	9	0	1	590	1	590	0	1184
12	A105_02606T0	Z519_07135T0	98.47	196	3	0	1	196	1	196	3.00E-144	402
4	A105_03502T0	Z519_09626T0	98.47	459	7	0	1	459	1	459	0	921
12	A105_03994T0	Z519_03292T0	98.47	2286	35	0	1	2286	1	2286	0	4680
1	A105_04240T0	Z519_03518T0	98.47	327	5	0	1	327	1	327	0	642
1	A105_05041T0	Z519_07932T0	98.47	458	7	0	1	458	1	458	0	925
2	A105_05473T0	Z519_08349T0	98.47	458	7	0	82	539	351	808	0	928
8	A105_05821T0	Z519_04911T0	98.47	1767	27	0	1	1767	1	1767	0	3633
7	A105_06690T0	Z519_08979T0	98.47	458	7	0	1	458	1	458	0	950
82	A105_06920T0	Z519_06579T0	98.47	327	5	0	1	327	1	327	0	651
8	A105_06992T0	Z519_06506T0	98.47	654	10	0	1	654	1	654	0	1318
4	A105_07315T0	Z519_05890T0	98.47	918	14	0	1	918	1	918	0	1857
10	A105_09180T0	Z519_05294T0	98.47	196	3	0	1	196	26	221	3.00E-135	381
2	A105_10872T0	Z519_11410T0	98.47	393	6	0	1	393	1	393	0	805
1	A105_10909T0	Z519_11449T0	98.47	196	3	0	1	196	1	196	1.00E-144	404
39	A105_11652T0	Z519_08647T0	98.47	523	8	0	2	524	3	525	0	1048
23	A105_12773T0	Z519_10832T0	98.47	261	4	0	1	261	1	261	0	523
1	A105_00160T0	Z519_00160T0	98.48	132	2	0	6	137	3	134	3.00E-92	266
1	A105_02842T0	Z519_07372T0	98.48	1052	16	0	1	1052	1	1052	0	2168
5	A105_04521T0	Z519_02348T0	98.48	462	7	0	1	462	1	462	0	945
36	A105_05075T0	Z519_07965T0	98.48	1509	22	1	1	1508	19	1527	0	3008
2	A105_05180T0	Z519_08069T0	98.48	197	3	0	1	197	1	197	1.00E-140	394
4	A105_06965T0	Z519_06531T0	98.48	3823	58	0	35	3857	24	3846	0	7845
1	A105_07513T0	Z519_06079T0	98.48	264	4	0	1	264	126	389	0	542
1	A105_07601T0	Z519_06164T0	98.48	395	6	0	1	395	1	395	0	791
202	A105_07698T0	Z519_07520T0	98.48	264	4	0	1	264	1	264	0	533
8	A105_10095T0	Z519_10290T0	98.48	329	5	0	1	329	1	329	0	673
23	A105_10284T0	Z519_10950T0	98.48	592	9	0	1	592	1	592	0	1191
10	A105_10910T0	Z519_11450T0	98.48	330	1	2	1	330	1	326	0	648
6	A105_10912T0	Z519_11453T0	98.48	1184	18	0	1	1184	1	1184	0	2420
3	A105_11199T0	Z519_08883T0	98.48	922	14	0	1	922	1	922	0	1895
54	A105_11887T0	Z519_01990T0	98.48	263	4	0	1	263	1	263	0	536
33	A105_01509T0	Z519_01909T0	98.49	331	5	0	1	331	1	331	0	661
2	A105_03128T0	Z519_09981T0	98.49	397	6	0	1	397	1	397	0	820
63	A105_04709T0	Z519_02539T0	98.49	465	7	0	1	465	1	465	0	958

1	A105_04954T0	Z519_02778T0	98.49	595	9	0	1	595	1	595	0	1215
3	A105_05689T0	Z519_11160T0	98.49	727	11	0	1	727	1	727	0	1479
6	A105_07901T0	Z519_07732T0	98.49	465	7	0	1	465	1	465	0	946
2	A105_10027T0	Z519_04140T0	98.49	662	10	0	1	662	1	662	0	1353
11	A105_11473T0	Z519_08754T0	98.49	596	9	0	1	596	1	596	0	1226
1	A105_00309T0	Z519_00318T0	98.5	400	6	0	1	400	1	400	0	824
5	A105_01335T0	Z519_11929T0	98.5	133	2	0	1	133	1	133	8.00E-93	267
102	A105_01536T0	Z519_01884T0	98.5	599	9	0	1	599	1	599	0	1234
34	A105_03053T0	Z519_11984T0	98.5	534	8	0	1	534	1	534	0	1079
1	A105_04582T0	Z519_02410T0	98.5	466	7	0	1	466	1	466	0	945
13	A105_04649T0	Z519_02476T0	98.5	334	5	0	1	334	1	334	0	687
122	A105_07468T0	Z519_06035T0	98.5	532	8	0	1	532	1	532	0	1087
2	A105_07510T0	Z519_06076T0	98.5	400	6	0	1	400	1	400	0	812
3	A105_08237T0	Z519_09457T0	98.5	334	5	0	1	334	1	334	0	679
32	A105_09048T0	Z519_05160T0	98.5	399	6	0	1	399	46	444	0	817
12	A105_09269T0	Z519_05376T0	98.5	935	13	1	21	955	16	949	0	1847
23	A105_09650T0	Z519_10554T0	98.5	668	10	0	1	668	1	668	0	1384
156	A105_00002T0	Z519_00002T0	98.51	536	8	0	1	536	1	536	0	1090
1	A105_00897T0	Z519_00846T0	98.51	605	9	0	1	605	1	605	0	1227
140	A105_02854T0	Z519_07385T0	98.51	538	8	0	1	538	1	538	0	1085
4	A105_03050T0	Z519_11987T0	98.51	538	8	0	1	538	1	538	0	1111
2	A105_03642T0	Z519_09771T0	98.51	134	2	0	1	134	1	134	1.00E-93	269
41	A105_05776T0	Z519_04961T0	98.51	536	8	0	1	536	1	536	0	1067
4	A105_06680T0	Z519_08989T0	98.51	537	8	0	1	537	1	537	0	1084
5	A105_07193T0	Z519_06307T0	98.51	402	6	0	1	402	1	402	0	833
1	A105_07389T0	Z519_05962T0	98.51	202	3	0	1	202	1	202	5.00E-145	405
5	A105_07560T0	Z519_06124T0	98.51	874	13	0	1	874	1	874	0	1778
3	A105_08474T0	Z519_05578T0	98.51	1142	17	0	1	1142	1	1142	0	2341
22	A105_10417T0	Z519_11293T0	98.51	673	10	0	1	673	1	673	0	1355
22	A105_11508T0	Z519_08786T0	98.51	469	4	1	16	481	17	485	0	939
12	A105_13101T0	Z519_11229T0	98.51	604	9	0	1	604	1	604	0	1231
20	A105_01041T0	Z519_00964T0	98.52	405	6	0	1	405	1	405	0	830
2	A105_01183T0	Z519_08451T0	98.52	607	7	1	1	607	1	605	0	1156
3	A105_01218T0	Z519_08486T0	98.52	813	12	0	1	813	1	813	0	1659
2	A105_01240T0	Z519_08507T0	98.52	337	5	0	1	337	52	388	0	686

16	A105_01647T0	Z519_01769T0	98.52	405	6	0	1	405	124	528	0	838
1	A105_03959T0	Z519_03258T0	98.52	539	8	0	1	539	1	539	0	1095
154	A105_04078T0	Z519_03354T0	98.52	540	8	0	1	540	1	540	0	1093
1	A105_04667T0	Z519_02496T0	98.52	135	2	0	1	135	1	135	5.00E-93	268
3	A105_06150T0	Z519_04588T0	98.52	944	13	1	1	943	1	944	0	1933
1	A105_12117T0	Z519_12377T0	98.52	1213	17	1	1	1212	1	1213	0	2478
1	A105_00547T0	Z519_00557T0	98.53	340	5	0	1	340	1	340	0	700
108	A105_00712T0	Z519_00706T0	98.53	545	8	0	4	548	3	547	0	1096
1	A105_01611T0	Z519_01806T0	98.53	204	3	0	1	204	1	204	8.00E-150	417
1	A105_08055T0	Z519_07890T0	98.53	1087	16	0	1	1087	1	1087	0	2257
1	A105_08857T0	Z519_03796T0	98.53	543	8	0	8	550	1	543	0	1101
5	A105_10366T0	Z519_11039T0	98.53	204	3	0	1	204	1	204	3.00E-148	413
1	A105_11230T0	Z519_08850T0	98.53	1364	20	0	1	1364	1	1364	0	2811
14	A105_12785T0	Z519_10844T0	98.53	475	7	0	1	475	1	475	0	967
2	A105_00061T0	Z519_00060T0	98.54	618	9	0	1	618	1	618	0	1261
5	A105_00484T0	Z519_00491T0	98.54	478	7	0	1	478	1	478	0	988
3	A105_00820T0	Z519_00768T0	98.54	824	12	0	1	824	1	824	0	1684
3	A105_01111T0	Z519_08385T0	98.54	752	11	0	1	752	1	752	0	1548
4	A105_01239T0	Z519_08506T0	98.54	685	10	0	1	685	1	685	0	1413
1	A105_03678T0	Z519_02997T0	98.54	205	3	0	1	205	1	205	2.00E-143	401
5	A105_04171T0	Z519_03449T0	98.54	205	3	0	1	205	1	205	9.00E-151	420
1	A105_04633T0	Z519_02460T0	98.54	823	6	1	1	817	1	823	0	1624
80	A105_05030T0	Z519_07920T0	98.54	1443	19	2	1	1442	1	1442	0	2892
5	A105_05292T0	Z519_08166T0	98.54	756	11	0	1	756	1	756	0	1542
16	A105_05369T0	Z519_08242T0	98.54	410	6	0	1	410	1	410	0	836
17	A105_05664T0	Z519_11184T0	98.54	410	6	0	1	410	1	410	0	833
10	A105_07072T0	Z519_06429T0	98.54	479	7	0	1	479	1	479	0	964
1	A105_09580T0	Z519_01016T0	98.54	205	3	0	1	205	1	205	8.00E-148	412
39	A105_10077T0	Z519_04092T0	98.54	549	8	0	1	549	1	549	0	1105
16	A105_10831T0	Z519_12237T0	98.54	411	6	0	1	411	1	411	0	841
31	A105_12562T0	Z519_05484T0	98.54	1511	22	0	1	1511	1	1511	0	3100
1	A105_12856T0	Z519_07460T0	98.54	481	7	0	1	481	1	481	0	993
8	A105_00734T0	Z519_00727T0	98.55	414	6	0	1	414	1	414	0	862
1	A105_01195T0	Z519_08462T0	98.55	138	2	0	1	138	1	138	7.00E-93	268
9	A105_02075T0	Z519_01403T0	98.55	692	10	0	1	692	1	692	0	1424

1	A105_02416T0	Z519_06944T0	98.55	963	14	0	1	963	1	963	0	1962
27	A105_02766T0	Z519_07298T0	98.55	344	5	0	1	344	1	344	0	699
2	A105_03514T0	Z519_09638T0	98.55	276	4	0	1	276	1	276	0	560
13	A105_05341T0	Z519_08214T0	98.55	621	9	0	1	621	1	621	0	1256
2	A105_06136T0	Z519_04601T0	98.55	551	8	0	1	551	1	551	0	1139
1	A105_06322T0	Z519_10703T0	98.55	69	1	0	1	69	3	71	5.00E-44	138
6	A105_07335T0	Z519_05907T0	98.55	138	2	0	1	138	1	138	3.00E-98	281
1	A105_08843T0	Z519_03810T0	98.55	275	4	0	1	275	1	275	0	555
1	A105_09921T0	Z519_04219T0	98.55	1868	23	2	1	1867	1	1865	0	3694
2	A105_10234T0	Z519_10900T0	98.55	346	5	0	1	346	1	346	0	694
39	A105_10716T0	Z519_09904T0	98.55	553	8	0	1	553	1	553	0	1114
20	A105_11701T0	Z519_02977T0	98.55	138	2	0	1	138	1	138	6.00E-96	275
1	A105_12271T0	Z519_04483T0	98.55	483	4	1	9	491	1	480	0	962
11	A105_01881T0	Z519_01583T0	98.56	832	12	0	1	832	1	832	0	1699
5	A105_04730T0	Z519_02560T0	98.56	416	6	0	1	416	951	1366	0	851
26	A105_05299T0	Z519_08173T0	98.56	348	5	0	1	348	1	348	0	706
21	A105_07147T0	Z519_06354T0	98.56	624	9	0	1	624	1	624	0	1280
1	A105_07381T0	Z519_05953T0	98.56	139	2	0	35	173	1	139	1.00E-98	284
1	A105_07592T0	Z519_06155T0	98.56	209	3	0	1	209	1	209	1.00E-148	415
1	A105_09316T0	Z519_01250T0	98.56	557	8	0	1	557	1	557	0	1127
2	A105_10053T0	Z519_04113T0	98.56	487	7	0	1	487	1	487	0	985
4	A105_11163T0	Z519_08913T0	98.56	485	7	0	1	485	1	485	0	990
1	A105_01967T0	Z519_01492T0	98.57	559	8	0	1	559	1	559	0	1130
155	A105_04294T0	Z519_03574T0	98.57	489	7	0	1	489	1	489	0	991
1	A105_04393T0	Z519_02224T0	98.57	1115	16	0	1	1115	1	1115	0	2278
40	A105_06429T0	Z519_10612T0	98.57	489	7	0	1	489	1	489	0	984
14	A105_07022T0	Z519_06479T0	98.57	561	8	0	1	561	1	561	0	1137
1	A105_07991T0	Z519_07827T0	98.57	210	3	0	1	210	1	210	2.00E-155	432
12	A105_10740T0	Z519_09928T0	98.57	628	9	0	1	628	1	628	0	1243
29	A105_12996T0	Z519_04412T0	98.57	560	8	0	1	560	1	560	0	1121
2	A105_13147T0	Z519_04376T0	98.57	280	3	1	1	280	1	279	0	518
5	A105_00922T0	Z519_00857T0	98.58	494	7	0	1	494	1	494	0	1005
1	A105_01858T0	Z519_01606T0	98.58	422	6	0	1	422	1	422	0	854
2	A105_02332T0	Z519_11642T0	98.58	211	3	0	1	211	1	211	1.00E-147	412
16	A105_02349T0	Z519_11622T0	98.58	282	4	0	1	282	1	282	0	583

4	A105_03545T0	Z519_09668T0	98.58	776	11	0	1	776	1	776	0	1570
1	A105_05430T0	Z519_08305T0	98.58	914	13	0	7	920	42	955	0	1896
15	A105_05567T0	Z519_03680T0	98.58	351	5	0	1	351	1	351	0	715
2	A105_06664T0	Z519_09005T0	98.58	351	5	0	1	351	1	351	0	716
7	A105_07852T0	Z519_07681T0	98.58	773	11	0	1	773	1	773	0	1576
1	A105_10635T0	Z519_12093T0	98.58	282	4	0	1	282	1	282	0	575
152	A105_12630T0	Z519_05407T0	98.58	494	7	0	1	494	1	494	0	1002
9	A105_00259T0	Z519_00261T0	98.59	354	5	0	27	380	1	354	0	722
13	A105_02687T0	Z519_07220T0	98.59	427	6	0	1	427	1	427	0	872
14	A105_03219T0	Z519_10069T0	98.59	567	8	0	1	567	1	567	0	1145
82	A105_03579T0	Z519_09703T0	98.59	919	13	0	1	919	1	919	0	1873
2	A105_04465T0	Z519_02297T0	98.59	497	6	1	1	497	1	496	0	958
4	A105_04842T0	Z519_02666T0	98.59	142	2	0	1	142	1	142	4.00E-102	291
1	A105_05642T0	Z519_11205T0	98.59	284	4	0	1	284	1	284	0	568
1	A105_06360T0	Z519_10680T0	98.59	71	1	0	1	71	1	71	6.00E-45	140
160	A105_07188T0	Z519_06312T0	98.59	569	8	0	1	569	1	569	0	1145
2	A105_07317T0	Z519_05892T0	98.59	426	6	0	1	426	1	426	0	862
11	A105_08818T0	Z519_03836T0	98.59	213	3	0	1	213	1	213	1.00E-154	431
172	A105_10250T0	Z519_10915T0	98.59	284	4	0	1	284	1	284	0	566
14	A105_10719T0	Z519_09907T0	98.59	782	11	0	1	782	1	782	0	1603
22	A105_10723T0	Z519_09911T0	98.59	213	0	1	1	210	1	213	3.00E-142	399
1	A105_11363T0	Z519_02095T0	98.59	142	2	0	1	142	1	142	1.00E-99	285
1	A105_12699T0	Z519_09809T0	98.59	497	7	0	1	497	1	497	0	1004
82	A105_00077T0	Z519_00076T0	98.6	928	13	0	1	928	1	928	0	1901
5	A105_00316T0	Z519_00325T0	98.6	572	8	0	1	572	1	572	0	1177
4	A105_02679T0	Z519_07211T0	98.6	571	8	0	49	619	37	607	0	1188
1	A105_06240T0	Z519_10771T0	98.6	572	7	1	1	572	1	571	0	1165
10	A105_07802T0	Z519_07617T0	98.6	358	5	0	1	358	1	358	0	712
115	A105_11143T0	Z519_08932T0	98.6	285	4	0	1	285	1	285	0	585
1	A105_12145T0	Z519_09257T0	98.6	214	3	0	1	214	1	214	5.00E-159	441
57	A105_13100T0	Z519_11228T0	98.6	358	5	0	1	358	1	358	0	726
1	A105_13305T0	Z519_05028T0	98.6	572	8	0	1	572	1	572	0	1168
15	A105_02008T0	Z519_01452T0	98.61	433	6	0	1	433	1	433	0	879
94	A105_02762T0	Z519_07294T0	98.61	576	8	0	1	576	1	576	0	1154
1	A105_04822T0	Z519_02647T0	98.61	144	2	0	1	144	1	144	6.00E-104	296

1	A105_05568T0	Z519_03681T0	98.61	144	2	0	1	144	1	144	6.00E-100	286
63	A105_05882T0	Z519_04852T0	98.61	793	11	0	1	793	1	793	0	1619
1	A105_06966T0	Z519_06530T0	98.61	720	10	0	1	720	1	720	0	1459
116	A105_08236T0	Z519_09456T0	98.61	505	7	0	1	505	1	505	0	1029
1	A105_08814T0	Z519_03840T0	98.61	287	4	0	1	287	1	287	0	584
89	A105_09142T0	Z519_05252T0	98.61	505	7	0	1	505	1	505	0	1029
37	A105_09317T0	Z519_01249T0	98.61	938	13	0	1	938	1	938	0	1934
1	A105_00483T0	Z519_00490T0	98.62	651	9	0	1	651	1	651	0	1329
8	A105_02270T0	Z519_11707T0	98.62	436	6	0	1	436	1	436	0	875
6	A105_03414T0	Z519_10236T0	98.62	939	13	0	1	939	1	939	0	1918
37	A105_04074T0	Z519_03350T0	98.62	363	5	0	1	363	1	363	0	719
2	A105_05490T0	Z519_03608T0	98.62	434	6	0	1	434	1	434	0	881
1	A105_09814T0	Z519_10406T0	98.62	363	5	0	1	363	1	363	0	721
8	A105_10507T0	Z519_11385T0	98.62	725	10	0	1	725	1	725	0	1473
20	A105_12260T0	Z519_04493T0	98.62	870	12	0	1	870	1	870	0	1783
1	A105_13064T0	Z519_12128T0	98.62	218	3	0	1	218	1	218	2.00E-157	438
6	A105_01092T0	Z519_08371T0	98.63	728	9	1	1	727	1	728	0	1506
1	A105_03650T0	Z519_09778T0	98.63	146	2	0	1	146	337	482	2.00E-99	299
6	A105_05604T0	Z519_03712T0	98.63	291	4	0	1	291	1	291	0	594
14	A105_05847T0	Z519_04886T0	98.63	365	5	0	1	365	1	365	0	739
138	A105_07051T0	Z519_06451T0	98.63	293	4	0	1	293	1	293	0	590
1	A105_09661T0	Z519_10543T0	98.63	512	7	0	1	512	45	556	0	1018
7	A105_10041T0	Z519_04125T0	98.63	732	10	0	1	732	1	732	0	1501
47	A105_10207T0	Z519_10873T0	98.63	366	5	0	1	366	1	366	0	753
24	A105_12038T0	Z519_05691T0	98.63	510	7	0	1	510	56	565	0	1022
2	A105_12358T0	Z519_12442T0	98.63	293	4	0	1	293	1	293	0	584
1	A105_13308T0	Z519_05025T0	98.63	510	7	0	1	510	1	510	0	1006
157	A105_02341T0	Z519_11631T0	98.64	515	7	0	1	515	1	515	0	1049
1	A105_06964T0	Z519_06532T0	98.64	660	9	0	1	660	1	660	0	1353
1	A105_07003T0	Z519_06497T0	98.64	440	6	0	22	461	78	517	0	888
1	A105_08573T0	Z519_04070T0	98.64	147	2	0	1	147	1	147	1.00E-106	303
1	A105_09418T0	Z519_01167T0	98.64	147	2	0	1	147	1	147	2.00E-101	290
1	A105_10793T0	Z519_12274T0	98.64	367	5	0	1	367	1	367	0	748
2	A105_00837T0	Z519_00783T0	98.65	1188	16	0	1	1188	1	1188	0	2462
1	A105_01081T0	Z519_01000T0	98.65	297	4	0	1	297	1	297	0	590

1	A105_01229T0	Z519_08497T0	98.65	594	8	0	1	594	1	594	0	1183
2	A105_01743T0	Z519_01695T0	98.65	223	3	0	1	223	1	223	2.00E-161	448
9	A105_01851T0	Z519_01613T0	98.65	371	5	0	1	371	1	371	0	744
1	A105_02000T0	Z519_01460T0	98.65	517	7	0	1	517	1	517	0	1066
1	A105_03479T0	Z519_09605T0	98.65	148	2	0	1	148	1	148	5.00E-101	289
2	A105_04216T0	Z519_03496T0	98.65	148	2	0	1	148	20	167	1.00E-101	291
1	A105_04423T0	Z519_02255T0	98.65	815	11	0	1	815	1	815	0	1674
1	A105_04741T0	Z519_02570T0	98.65	223	3	0	1	223	1	223	1.00E-161	449
8	A105_05661T0	Z519_11187T0	98.65	148	2	0	1	148	1	148	5.00E-107	304
25	A105_05727T0	Z519_11121T0	98.65	592	8	0	1	592	1	592	0	1193
16	A105_05808T0	Z519_04925T0	98.65	517	7	0	1	517	1	517	0	1063
1	A105_06345T0	Z519_10694T0	98.65	739	10	0	1	739	1	739	0	1502
1	A105_09440T0	Z519_01146T0	98.65	148	2	0	44	191	45	192	2.00E-77	239
5	A105_10493T0	Z519_11369T0	98.65	963	13	0	1	963	1	963	0	1949
3	A105_10746T0	Z519_09934T0	98.65	669	9	0	1	669	1	669	0	1372
3	A105_10946T0	Z519_11484T0	98.65	74	1	0	1	74	1	74	1.00E-46	145
1	A105_00111T0	Z519_00112T0	98.66	224	3	0	1	224	1	224	2.00E-160	446
161	A105_00410T0	Z519_00411T0	98.66	299	4	0	1	299	1	299	0	608
1	A105_01893T0	Z519_01573T0	98.66	149	2	0	1	149	1	149	3.00E-101	290
6	A105_02362T0	Z519_11609T0	98.66	298	4	0	1	298	1	298	0	618
4	A105_02828T0	Z519_07359T0	98.66	967	13	0	1	967	1	967	0	1949
1	A105_03611T0	Z519_09739T0	98.66	448	6	0	1	448	1	448	0	915
41	A105_07104T0	Z519_06396T0	98.66	521	7	0	1	521	1	521	0	1038
151	A105_07707T0	Z519_07530T0	98.66	522	7	0	1	522	1	522	0	1063
54	A105_08678T0	Z519_03981T0	98.66	595	8	0	1	595	1	595	0	1210
1	A105_09127T0	Z519_05238T0	98.66	747	10	0	1	747	1	747	0	1524
1	A105_11265T0	Z519_08812T0	98.66	822	11	0	1	822	1	822	0	1654
4	A105_11985T0	Z519_05747T0	98.66	372	5	0	1	372	1	372	0	769
158	A105_12487T0	Z519_02821T0	98.66	523	6	1	1	523	1	522	0	1055
2	A105_13343T0	Z519_09326T0	98.66	298	4	0	1	298	1	298	0	612
1	A105_00041T0	Z519_00041T0	98.67	75	1	0	1	75	1	75	4.00E-47	146
10	A105_00607T0	Z519_00618T0	98.67	300	4	0	1	300	1	300	0	600
15	A105_00651T0	Z519_00650T0	98.67	452	6	0	1	452	1	452	0	944
1	A105_01976T0	Z519_01483T0	98.67	75	1	0	1	75	325	399	8.00E-47	154
1	A105_02837T0	Z519_07367T0	98.67	451	6	0	1	451	1	451	0	921

10	A105_02941T0	Z519_12087T0	98.67	375	5	0	1	375	1	375	0	760
37	A105_03626T0	Z519_09754T0	98.67	1124	15	0	1	1124	1	1124	0	2302
5	A105_06133T0	Z519_04604T0	98.67	1955	25	1	1	1955	1	1954	0	3987
54	A105_08828T0	Z519_03826T0	98.67	451	6	0	1	451	1	451	0	922
10	A105_10372T0	Z519_11046T0	98.67	450	6	0	1	450	1	450	0	927
42	A105_13148T0	Z519_04375T0	98.67	525	7	0	1	525	1	525	0	1056
1	A105_01250T0	Z519_08516T0	98.68	76	1	0	17	92	1	76	8.00E-50	154
7	A105_01922T0	Z519_01538T0	98.68	606	8	0	1	606	1	606	0	1238
14	A105_02772T0	Z519_07304T0	98.68	455	6	0	1	455	1	455	0	934
1	A105_03215T0	Z519_10065T0	98.68	380	5	0	1	380	1	380	0	784
7	A105_05074T0	Z519_07964T0	98.68	605	4	1	1	601	1	605	0	1223
8	A105_06382T0	Z519_10658T0	98.68	304	4	0	1	304	1	304	0	625
146	A105_06937T0	Z519_06562T0	98.68	532	7	0	1	532	1	532	0	1080
1	A105_08723T0	Z519_03935T0	98.68	302	4	0	1	302	1	302	0	611
7	A105_09374T0	Z519_01195T0	98.68	983	13	0	1	983	1	983	0	1998
2	A105_00134T0	Z519_00135T0	98.69	533	7	0	1	533	1	533	0	1082
2	A105_02724T0	Z519_07259T0	98.69	306	4	0	1	306	1	306	0	624
2	A105_03966T0	Z519_03265T0	98.69	306	4	0	1	306	1	306	0	604
66	A105_04156T0	Z519_03436T0	98.69	611	8	0	1	611	1	611	0	1227
4	A105_04605T0	Z519_02433T0	98.69	306	4	0	1	306	1	306	0	629
3	A105_07142T0	Z519_06359T0	98.69	1217	16	0	1	1217	1	1217	0	2493
28	A105_08401T0	Z519_05643T0	98.69	306	4	0	1	306	1	306	0	612
36	A105_09116T0	Z519_05226T0	98.69	764	10	0	3	766	42	805	0	1568
151	A105_09415T0	Z519_01170T0	98.69	535	7	0	1	535	1	535	0	1088
1	A105_09867T0	Z519_10350T0	98.69	153	2	0	1	153	22	174	3.00E-108	308
153	A105_11217T0	Z519_08863T0	98.69	534	7	0	1	534	1	534	0	1087
2	A105_11226T0	Z519_08854T0	98.69	458	6	0	1	458	1	458	0	913
2	A105_00159T0	Z519_00159T0	98.7	538	7	0	10	547	85	622	0	1083
98	A105_00173T0	Z519_00174T0	98.7	307	4	0	1	307	1	307	0	631
70	A105_00324T0	Z519_00334T0	98.7	308	4	0	1	308	1	308	0	626
2	A105_00575T0	Z519_00586T0	98.7	230	3	0	1	230	1	230	2.00E-167	464
4	A105_02010T0	Z519_01447T0	98.7	1081	14	0	1	1081	1	1081	0	2221
41	A105_02142T0	Z519_01336T0	98.7	540	7	0	1	540	1	540	0	1085
1	A105_02357T0	Z519_11614T0	98.7	154	2	0	1	154	1	154	2.00E-107	306
1	A105_04163T0	Z519_03442T0	98.7	920	12	0	1	920	1	920	0	1878

2	A105_04417T0	Z519_02249T0	98.7	307	4	0	1	307	1	307	0	617
2	A105_05926T0	Z519_04808T0	98.7	230	3	0	1	230	74	303	7.00E-170	473
1	A105_06315T0	Z519_10709T0	98.7	693	9	0	1	693	1	693	0	1409
53	A105_08610T0	Z519_04039T0	98.7	463	6	0	3	465	1	463	0	949
1	A105_09312T0	Z519_01254T0	98.7	462	6	0	21	482	25	486	0	951
1	A105_10216T0	Z519_10882T0	98.7	231	3	0	1	231	1	231	1.00E-165	460
84	A105_10778T0	Z519_12287T0	98.7	308	4	0	1	308	1	308	0	627
1	A105_11542T0	Z519_11554T0	98.7	231	3	0	1	231	1	231	5.00E-153	428
47	A105_12401T0	Z519_06275T0	98.7	384	5	0	1	384	1	384	0	781
3	A105_12752T0	Z519_10810T0	98.7	308	4	0	1	308	1	308	0	612
1	A105_00441T0	Z519_00448T0	98.71	775	10	0	1	775	1	775	0	1526
51	A105_01857T0	Z519_01607T0	98.71	311	4	0	1	311	1	311	0	632
1	A105_02945T0	Z519_12081T0	98.71	618	8	0	1	618	1	618	0	1246
1	A105_03120T0	Z519_09974T0	98.71	155	2	0	26	180	14	168	1.00E-105	303
88	A105_03420T0	Z519_10242T0	98.71	618	8	0	1	618	1	618	0	1246
2	A105_03452T0	Z519_10274T0	98.71	155	2	0	1	155	32	186	4.00E-109	311
3	A105_03752T0	Z519_03075T0	98.71	1085	13	1	1	1085	1	1084	0	2103
3	A105_04407T0	Z519_02238T0	98.71	155	2	0	1	155	1	155	7.00E-107	304
39	A105_04661T0	Z519_02490T0	98.71	464	6	0	1	464	1	464	0	937
1	A105_04803T0	Z519_02631T0	98.71	387	5	0	1	387	1	387	0	779
16	A105_05391T0	Z519_08265T0	98.71	621	8	0	1	621	1	621	0	1286
12	A105_05690T0	Z519_11159T0	98.71	388	5	0	1	388	1	388	0	779
2	A105_07216T0	Z519_05794T0	98.71	309	2	1	1	307	1	309	2.00E-172	483
1	A105_07493T0	Z519_06059T0	98.71	618	8	0	1	618	1	618	0	1259
14	A105_08714T0	Z519_03945T0	98.71	855	11	0	8	862	30	884	0	1739
81	A105_08884T0	Z519_03769T0	98.71	1477	19	0	1	1477	1	1477	0	3011
90	A105_09156T0	Z519_05266T0	98.71	543	7	0	1	543	1	543	0	1098
1	A105_12586T0	Z519_05456T0	98.71	155	1	1	1	155	1	154	3.00E-107	305
3	A105_00174T0	Z519_00175T0	98.72	235	3	0	1	235	1	235	3.00E-172	477
1	A105_00516T0	Z519_00523T0	98.72	156	2	0	1	156	1	156	1.00E-108	309
1	A105_00595T0	Z519_00605T0	98.72	549	7	0	1	549	1	549	0	1119
2	A105_00759T0	Z519_00752T0	98.72	623	7	1	1	623	1	622	0	1265
8	A105_02300T0	Z519_11676T0	98.72	548	7	0	1	548	1	548	0	1113
2	A105_02970T0	Z519_12059T0	98.72	857	11	0	1	857	1	857	0	1731
3	A105_03856T0	Z519_03174T0	98.72	626	8	0	1	626	4	629	0	1278

4	A105_06442T0	Z519_10599T0	98.72	468	6	0	1	468	1	468	0	964
32	A105_08210T0	Z519_09432T0	98.72	392	5	0	1	392	1	392	0	798
2	A105_09163T0	Z519_05274T0	98.72	156	2	0	1	156	1	156	3.00E-109	310
12	A105_09890T0	Z519_10328T0	98.72	391	5	0	1	391	1	391	0	809
1	A105_11792T0	Z519_02889T0	98.72	1952	25	0	1	1952	8	1959	0	3999
2	A105_11876T0	Z519_01980T0	98.72	390	5	0	1	390	1	390	0	793
1	A105_12721T0	Z519_09792T0	98.72	470	6	0	1	470	1	470	0	965
46	A105_12783T0	Z519_10842T0	98.72	391	5	0	1	391	1	391	0	794
5	A105_13280T0	Z519_12152T0	98.72	625	8	0	1	625	1	625	0	1281
134	A105_00409T0	Z519_00410T0	98.73	471	6	0	1	471	1	471	0	972
1	A105_02639T0	Z519_07171T0	98.73	158	2	0	1	158	1	158	1.00E-115	328
1	A105_02882T0	Z519_07413T0	98.73	393	4	1	1	392	69	461	0	756
1	A105_04745T0	Z519_02575T0	98.73	314	4	0	1	314	1	314	0	608
143	A105_06895T0	Z519_06604T0	98.73	553	7	0	1	553	1	553	0	1130
103	A105_06949T0	Z519_06548T0	98.73	552	7	0	1	552	1	552	0	1139
1	A105_07185T0	Z519_06315T0	98.73	1026	13	0	1	1026	1	1026	0	2100
16	A105_08063T0	Z519_07898T0	98.73	236	3	0	1	236	1	236	6.00E-171	473
2	A105_11014T0	Z519_06811T0	98.73	474	6	0	1	474	1	474	0	952
1	A105_11672T0	Z519_08624T0	98.73	1341	17	0	1	1341	1	1341	0	2684
1	A105_11791T0	Z519_02890T0	98.73	868	7	1	1	868	1	864	0	1737
1	A105_13150T0	Z519_04373T0	98.73	236	3	0	1	236	1	236	1.00E-170	473
1	A105_00513T0	Z519_00521T0	98.74	318	4	0	1	318	1	318	0	634
19	A105_02107T0	Z519_01373T0	98.74	159	2	0	1	159	1	159	6.00E-115	325
7	A105_02499T0	Z519_07033T0	98.74	956	12	0	1	956	1	956	0	1967
5	A105_02686T0	Z519_07219T0	98.74	396	5	0	1	396	1	396	0	808
3	A105_03701T0	Z519_03020T0	98.74	398	4	1	1	398	1	397	0	763
1	A105_04017T0	Z519_03312T0	98.74	1029	13	0	1	1029	1	1029	0	2110
27	A105_05696T0	Z519_11154T0	98.74	318	4	0	1	318	1	318	0	658
3	A105_05927T0	Z519_04807T0	98.74	398	5	0	1	398	1	398	0	819
2	A105_07661T0	Z519_06226T0	98.74	317	4	0	1	317	1	317	0	647
7	A105_07857T0	Z519_07686T0	98.74	317	4	0	1	317	1	317	0	641
23	A105_09333T0	Z519_01233T0	98.74	636	8	0	1	636	1	636	0	1302
4	A105_10452T0	Z519_11329T0	98.74	554	7	0	1	554	1	554	0	1148
1	A105_11979T0	Z519_05753T0	98.74	554	7	0	22	575	5	558	0	1137
2	A105_00034T0	Z519_00034T0	98.75	321	4	0	1	321	1	321	0	649

4	A105_00197T0	Z519_00199T0	98.75	160	2	0	1	160	1	160	8.00E-115	325
1	A105_01502T0	Z519_01912T0	98.75	80	1	0	1	80	1	80	9.00E-53	162
17	A105_04970T0	Z519_02794T0	98.75	399	5	0	1	399	1	399	0	807
1	A105_05073T0	Z519_07963T0	98.75	401	5	0	1	401	1	401	0	796
21	A105_05401T0	Z519_08275T0	98.75	479	6	0	1	479	1	479	0	986
20	A105_05815T0	Z519_04918T0	98.75	722	9	0	1	722	1	722	0	1471
3	A105_08111T0	Z519_09335T0	98.75	479	6	0	1	479	82	560	0	971
1	A105_08721T0	Z519_03937T0	98.75	80	1	0	1	80	1	80	7.00E-54	164
151	A105_08824T0	Z519_03830T0	98.75	560	7	0	1	560	1	560	0	1142
7	A105_09479T0	Z519_01107T0	98.75	400	5	0	1	400	1	400	0	812
1	A105_10105T0	Z519_04254T0	98.75	320	4	0	1	320	1	320	0	647
1	A105_10829T0	Z519_12239T0	98.75	320	4	0	1	320	1	320	0	636
3	A105_00370T0	Z519_00373T0	98.76	323	4	0	1	323	1	323	0	653
1	A105_01960T0	Z519_01499T0	98.76	161	2	0	1	161	1	161	2.00E-115	327
1	A105_03738T0	Z519_03058T0	98.76	483	6	0	1	483	1	483	0	976
40	A105_04260T0	Z519_03538T0	98.76	563	7	0	1	563	1	563	0	1136
1	A105_08045T0	Z519_07880T0	98.76	1366	17	0	1	1366	1	1366	0	2773
5	A105_08679T0	Z519_03980T0	98.76	964	12	0	1	964	1	964	0	1941
7	A105_10122T0	Z519_04271T0	98.76	484	6	0	1	484	16	499	0	975
33	A105_11083T0	Z519_06883T0	98.76	889	11	0	1	889	1	889	0	1817
1	A105_01884T0	Z519_01580T0	98.77	243	3	0	1	243	1	243	9.00E-178	491
6	A105_02013T0	Z519_01444T0	98.77	408	5	0	1	408	1	408	0	832
9	A105_03380T0	Z519_10201T0	98.77	568	7	0	1	568	20	587	0	1184
3	A105_04553T0	Z519_02381T0	98.77	163	2	0	1	163	1	163	9.00E-118	333
107	A105_04644T0	Z519_02471T0	98.77	893	11	0	1	893	1	893	0	1847
26	A105_07048T0	Z519_06454T0	98.77	568	7	0	1	568	1	568	0	1134
3	A105_07397T0	Z519_05969T0	98.77	487	6	0	37	523	1	487	0	998
1	A105_07403T0	Z519_05975T0	98.77	653	8	0	1	653	1	653	0	1295
2	A105_07837T0	Z519_07653T0	98.77	81	1	0	1	81	1	81	4.00E-51	157
1	A105_08739T0	Z519_03919T0	98.77	81	1	0	1	81	1	81	8.00E-54	164
1	A105_09430T0	Z519_01156T0	98.77	408	5	0	1	408	1	408	0	823
1	A105_09680T0	Z519_10527T0	98.77	243	3	0	1	243	1	243	2.00E-177	491
98	A105_10367T0	Z519_11040T0	98.77	653	8	0	1	653	1	653	0	1330
3	A105_10638T0	Z519_09826T0	98.77	325	4	0	1	325	1	325	0	654
10	A105_10720T0	Z519_09908T0	98.77	163	2	0	1	163	1	163	9.00E-118	333

1	A105_11167T0	Z519_08910T0	98.77	243	3	0	2	244	4	246	4.00E-179	495
58	A105_11720T0	Z519_02959T0	98.77	325	4	0	1	325	1	325	0	660
1	A105_12307T0	Z519_04458T0	98.77	407	5	0	1	407	6	412	0	846
20	A105_00025T0	Z519_00024T0	98.78	1067	12	1	1	1066	1	1067	0	1937
1	A105_00094T0	Z519_00093T0	98.78	658	8	0	1	658	1	658	0	1337
1	A105_01744T0	Z519_01694T0	98.78	329	4	0	1	329	1	329	0	666
2	A105_03218T0	Z519_10068T0	98.78	246	3	0	1	246	1	246	7.00E-179	494
11	A105_03565T0	Z519_09688T0	98.78	657	8	0	1	657	1	657	0	1335
50	A105_04838T0	Z519_02662T0	98.78	1561	19	0	1	1561	1	1561	0	3174
78	A105_05278T0	Z519_08151T0	98.78	1068	13	0	1	1068	1	1068	0	2164
1	A105_09451T0	Z519_01135T0	98.78	82	1	0	1	82	1	82	1.00E-53	163
15	A105_10078T0	Z519_04091T0	98.78	327	4	0	1	327	1	327	0	674
1	A105_11200T0	Z519_08882T0	98.78	246	3	0	1	246	1	246	0	504
59	A105_12895T0	Z519_07499T0	98.78	822	10	0	1	822	1	822	0	1681
43	A105_00437T0	Z519_00443T0	98.79	495	6	0	1	495	1	495	0	998
3	A105_00622T0	Z519_00632T0	98.79	413	5	0	1	413	1	413	0	856
41	A105_01286T0	Z519_08551T0	98.79	497	6	0	1	497	1	497	0	1016
1	A105_02481T0	Z519_07015T0	98.79	495	6	0	1	495	3	497	0	1021
1	A105_03170T0	Z519_10020T0	98.79	165	2	0	1	165	1	165	9.00E-119	335
154	A105_06633T0	Z519_09032T0	98.79	496	6	0	1	496	1	496	0	994
2	A105_06889T0	Z519_06610T0	98.79	165	2	0	1	165	1	165	2.00E-120	340
3	A105_07285T0	Z519_05864T0	98.79	248	3	0	1	248	1	248	0	509
1	A105_07961T0	Z519_07801T0	98.79	330	4	0	1	330	1	330	0	668
9	A105_11517T0	Z519_11582T0	98.79	497	6	0	1	497	1	497	0	1021
3	A105_00155T0	Z519_00155T0	98.8	249	3	0	1	249	1	249	0	502
10	A105_01204T0	Z519_08471T0	98.8	500	6	0	1	500	1	500	0	1011
4	A105_01302T0	Z519_08566T0	98.8	250	3	0	1	250	1	250	0	511
1	A105_02674T0	Z519_07207T0	98.8	166	2	0	1	166	1	166	1.00E-111	317
1	A105_03162T0	Z519_10012T0	98.8	83	1	0	1	83	1	83	1.00E-55	168
1	A105_03696T0	Z519_03015T0	98.8	249	3	0	1	249	1	249	9.00E-177	489
1	A105_05832T0	Z519_04900T0	98.8	1001	12	0	1	1001	52	1052	0	2086
2	A105_07794T0	Z519_07609T0	98.8	166	2	0	1	166	1	166	3.00E-118	334
1	A105_08043T0	Z519_07878T0	98.8	166	2	0	1	166	1	166	4.00E-117	331
2	A105_08468T0	Z519_05584T0	98.8	919	11	0	1	919	35	953	0	1866
205	A105_09110T0	Z519_05220T0	98.8	250	3	0	1	250	41	290	0	502

8	A105_09330T0	Z519_01236T0	98.8	167	2	0	27	193	395	561	2.00E-120	355
41	A105_10319T0	Z519_10984T0	98.8	502	6	0	1	502	1	502	0	1018
1	A105_10701T0	Z519_09886T0	98.8	418	5	0	11	428	1	418	0	866
11	A105_11102T0	Z519_06902T0	98.8	1080	13	0	1	1080	1	1080	0	2231
30	A105_11211T0	Z519_08872T0	98.8	334	4	0	1	334	1	334	0	690
2	A105_11568T0	Z519_11528T0	98.8	250	3	0	1	250	1	250	0	503
11	A105_12151T0	Z519_09264T0	98.8	251	3	0	1	251	1	251	0	514
5	A105_13107T0	Z519_11234T0	98.8	334	4	0	1	334	1	334	0	687
62	A105_00249T0	Z519_00248T0	98.81	1091	11	1	1	1091	1	1089	0	2152
88	A105_00256T0	Z519_00258T0	98.81	586	7	0	1	586	1	586	0	1164
20	A105_00715T0	Z519_00708T0	98.81	1007	11	1	1	1007	1	1006	0	1879
30	A105_01162T0	Z519_08430T0	98.81	252	3	0	75	326	1	252	0	518
1	A105_01264T0	Z519_08530T0	98.81	419	5	0	1	419	39	457	0	836
20	A105_04500T0	Z519_02328T0	98.81	586	7	0	1	586	1	586	0	1204
1	A105_05038T0	Z519_07929T0	98.81	84	1	0	1	84	14	97	3.00E-53	163
1	A105_07851T0	Z519_07680T0	98.81	673	8	0	1	673	1	673	0	1358
1	A105_08490T0	Z519_05561T0	98.81	253	3	0	1	253	1	253	6.00E-180	498
5	A105_11147T0	Z519_08928T0	98.81	168	2	0	25	192	1	168	1.00E-122	347
33	A105_00929T0	Z519_00865T0	98.82	338	4	0	1	338	1	338	0	681
177	A105_03572T0	Z519_09694T0	98.82	255	3	0	1	255	1	255	0	508
2	A105_04367T0	Z519_02194T0	98.82	508	6	0	1	508	1	508	0	1042
41	A105_04458T0	Z519_02290T0	98.82	934	11	0	1	934	1	934	0	1911
9	A105_07345T0	Z519_05918T0	98.82	339	4	0	1	339	1	339	0	688
3	A105_09376T0	Z519_01192T0	98.82	169	2	0	1	169	1	169	4.00E-121	342
21	A105_10641T0	Z519_09829T0	98.82	255	3	0	1	255	1	255	0	511
38	A105_10733T0	Z519_09921T0	98.82	340	4	0	1	340	1	340	0	696
4	A105_11912T0	Z519_02015T0	98.82	1184	14	0	1	1184	1	1184	0	2399
7	A105_12075T0	Z519_12337T0	98.82	934	11	0	1	934	1	934	0	1916
4	A105_00220T0	Z519_00218T0	98.83	937	11	0	1	937	1	937	0	1929
5	A105_00317T0	Z519_00326T0	98.83	857	10	0	1	857	1	857	0	1735
32	A105_00935T0	Z519_00870T0	98.83	341	3	1	7	347	27	366	0	691
87	A105_01360T0	Z519_11908T0	98.83	513	6	0	1	513	1	513	0	1042
205	A105_01916T0	Z519_01545T0	98.83	256	3	0	1	256	1	256	0	513
83	A105_02240T0	Z519_11739T0	98.83	512	6	0	1	512	1	512	0	1028
91	A105_02285T0	Z519_11691T0	98.83	514	6	0	1	514	1	514	0	1046

26	A105_03037T0	Z519_12000T0	98.83	515	6	0	1	515	1	515	0	1058
164	A105_04236T0	Z519_03515T0	98.83	513	6	0	1	513	1	513	0	1055
5	A105_05560T0	Z519_03675T0	98.83	429	5	0	1	429	1	429	0	864
11	A105_05822T0	Z519_04910T0	98.83	1879	22	0	1	1879	1	1879	0	3875
5	A105_05985T0	Z519_04751T0	98.83	428	5	0	1	428	1	428	0	852
41	A105_06590T0	Z519_09074T0	98.83	682	8	0	1	682	1	682	0	1399
1	A105_07728T0	Z519_07543T0	98.83	171	2	0	1	171	1	171	2.00E-125	353
174	A105_08305T0	Z519_09521T0	98.83	257	3	0	1	257	1	257	0	523
7	A105_09255T0	Z519_05363T0	98.83	342	4	0	1	342	1	342	0	697
30	A105_10668T0	Z519_09855T0	98.83	342	4	0	1	342	1	342	0	702
4	A105_10936T0	Z519_11475T0	98.83	686	8	0	1	686	1	686	0	1405
114	A105_11367T0	Z519_02091T0	98.83	511	6	0	1	511	1	511	0	1048
163	A105_12312T0	Z519_12399T0	98.83	515	6	0	1	515	1	515	0	1038
41	A105_12746T0	Z519_10805T0	98.83	511	6	0	1	511	1	511	0	1044
1	A105_12893T0	Z519_07497T0	98.83	256	3	0	1	256	1	256	0	518
2	A105_00371T0	Z519_00374T0	98.84	345	4	0	1	345	1	345	0	707
2	A105_01876T0	Z519_01588T0	98.84	951	10	1	1	951	1	950	0	1925
21	A105_02803T0	Z519_07335T0	98.84	86	1	0	1	86	1	86	2.00E-57	173
6	A105_03664T0	Z519_02985T0	98.84	604	7	0	1	604	1	604	0	1246
8	A105_03672T0	Z519_02992T0	98.84	172	2	0	1	172	1	172	2.00E-126	356
3	A105_03914T0	Z519_03228T0	98.84	258	3	0	1	258	1	258	0	529
12	A105_04019T0	Z519_03314T0	98.84	430	5	0	1	430	32	461	0	850
156	A105_04170T0	Z519_03448T0	98.84	518	6	0	1	518	1	518	0	1069
1	A105_04372T0	Z519_02199T0	98.84	173	2	0	1	173	1	173	2.00E-121	343
3	A105_04480T0	Z519_02309T0	98.84	775	9	0	1	775	1	775	0	1583
1	A105_05333T0	Z519_08207T0	98.84	172	2	0	1	172	1	172	8.00E-119	336
3	A105_07371T0	Z519_05943T0	98.84	948	11	0	1	948	1	948	0	1909
4	A105_08260T0	Z519_09482T0	98.84	692	8	0	1	692	1	692	0	1387
153	A105_09034T0	Z519_05139T0	98.84	518	6	0	1	518	1	518	0	1074
2	A105_09439T0	Z519_01147T0	98.84	516	6	0	1	516	1	516	0	1031
151	A105_09584T0	Z519_01012T0	98.84	519	6	0	1	519	1	519	0	1043
1	A105_11225T0	Z519_08855T0	98.84	692	7	1	1	692	2	692	0	1140
14	A105_01664T0	Z519_01752T0	98.85	520	6	0	1	520	1	520	0	1051
33	A105_01867T0	Z519_01598T0	98.85	349	4	0	1	349	1	349	0	719
160	A105_02225T0	Z519_11750T0	98.85	521	6	0	1	521	1	521	0	1052

1	A105_02729T0	Z519_07263T0	98.85	87	1	0	1	87	1	87	1.00E-56	171
1	A105_03051T0	Z519_11986T0	98.85	697	8	0	5	701	69	765	0	1441
158	A105_03143T0	Z519_09996T0	98.85	520	6	0	1	520	1	520	0	1059
7	A105_04374T0	Z519_02201T0	98.85	261	3	0	1	261	1	261	0	531
7	A105_04674T0	Z519_02503T0	98.85	522	6	0	1	522	1	522	0	1072
1	A105_05793T0	Z519_04940T0	98.85	349	4	0	1	349	1	349	0	699
1	A105_05980T0	Z519_04756T0	98.85	87	1	0	1	87	1	87	6.00E-59	177
2	A105_07616T0	Z519_06179T0	98.85	436	5	0	1	436	1	436	0	897
2	A105_07880T0	Z519_07710T0	98.85	87	1	0	1	87	1	87	5.00E-50	155
1	A105_08144T0	Z519_09367T0	98.85	694	7	1	1	693	1	694	0	1306
2	A105_10200T0	Z519_10866T0	98.85	435	5	0	1	435	1	435	0	885
1	A105_10282T0	Z519_10948T0	98.85	608	7	0	1	608	1	608	0	1236
152	A105_10922T0	Z519_11461T0	98.85	524	6	0	1	524	1	524	0	1065
3	A105_02325T0	Z519_11650T0	98.86	175	2	0	1	175	1	175	3.00E-129	363
149	A105_03366T0	Z519_10188T0	98.86	525	6	0	1	525	1	525	0	1060
1	A105_03628T0	Z519_09756T0	98.86	88	1	0	1	88	4	91	5.00E-59	177
85	A105_06134T0	Z519_04603T0	98.86	699	7	1	1	699	1	698	0	1436
182	A105_07176T0	Z519_06325T0	98.86	350	4	0	207	556	23	372	0	711
2	A105_07344T0	Z519_05917T0	98.86	699	8	0	1	699	1	699	0	1419
37	A105_07682T0	Z519_07505T0	98.86	614	5	1	1	612	1	614	0	1209
49	A105_08535T0	Z519_05517T0	98.86	614	7	0	62	675	1	614	0	1266
3	A105_08718T0	Z519_03940T0	98.86	264	3	0	1	264	1	264	0	525
82	A105_09119T0	Z519_05230T0	98.86	875	10	0	1	875	1	875	0	1775
1	A105_10431T0	Z519_11306T0	98.86	351	4	0	1	351	1	351	0	711
30	A105_11634T0	Z519_08663T0	98.86	264	3	0	13	276	98	361	0	549
153	A105_12269T0	Z519_04485T0	98.86	526	6	0	1	526	1	526	0	1070
28	A105_12882T0	Z519_07485T0	98.86	526	6	0	1	526	1	526	0	1074
1	A105_01746T0	Z519_01692T0	98.87	266	3	0	1	266	1	266	0	538
37	A105_02735T0	Z519_07268T0	98.87	354	4	0	1	354	1	354	0	714
7	A105_03377T0	Z519_10198T0	98.87	533	6	0	1	533	1	533	0	1089
40	A105_03391T0	Z519_10212T0	98.87	533	6	0	1	533	1	533	0	1073
145	A105_05804T0	Z519_04929T0	98.87	265	3	0	1	265	1	265	0	540
40	A105_11800T0	Z519_02884T0	98.87	529	6	0	7	535	1	529	0	1061
9	A105_12968T0	Z519_04386T0	98.87	354	4	0	1	354	1	354	0	709
154	A105_00413T0	Z519_00414T0	98.88	268	3	0	1	268	1	268	0	545

1	A105_00562T0	Z519_00573T0	98.88	357	4	0	1	357	36	392	0	721
1	A105_00937T0	Z519_00872T0	98.88	626	7	0	1	626	1	626	0	1228
9	A105_01453T0	Z519_11815T0	98.88	357	4	0	1	357	15	371	0	729
10	A105_02681T0	Z519_07213T0	98.88	537	6	0	1	537	1	537	0	1077
1	A105_04464T0	Z519_02296T0	98.88	89	1	0	1	89	1	89	6.00E-61	182
4	A105_08447T0	Z519_05605T0	98.88	445	5	0	42	486	62	506	0	919
50	A105_09466T0	Z519_01120T0	98.88	536	6	0	1	536	1	536	0	1066
65	A105_09790T0	Z519_10430T0	98.88	358	4	0	1	358	1	358	0	724
102	A105_11784T0	Z519_02897T0	98.88	534	6	0	1	534	1	534	0	1100
6	A105_12166T0	Z519_09284T0	98.88	269	3	0	1	269	1	269	0	551
2	A105_12192T0	Z519_04557T0	98.88	178	2	0	67	244	1	178	1.00E-131	372
20	A105_12391T0	Z519_06283T0	98.88	178	2	0	13	190	13	190	2.00E-129	364
55	A105_01927T0	Z519_01533T0	98.89	361	4	0	1	361	1	361	0	722
19	A105_04454T0	Z519_02286T0	98.89	542	6	0	1	542	1	542	0	1092
5	A105_06107T0	Z519_04630T0	98.89	361	4	0	1	361	1	361	0	734
4	A105_07172T0	Z519_06330T0	98.89	542	6	0	1	542	120	661	0	1126
1	A105_07547T0	Z519_06110T0	98.89	632	7	0	1	632	1	632	0	1282
9	A105_07980T0	Z519_07816T0	98.89	360	4	0	1	360	1	360	0	729
1	A105_09487T0	Z519_01096T0	98.89	361	4	0	1	361	1	361	0	743
1	A105_12370T0	Z519_12455T0	98.89	270	3	0	1	270	1	270	0	556
8	A105_12969T0	Z519_04387T0	98.89	360	4	0	4	363	29	388	0	736
1	A105_12995T0	Z519_04411T0	98.89	271	3	0	1	271	1	271	0	559
2	A105_00755T0	Z519_00748T0	98.9	636	7	0	1	636	1	636	0	1301
74	A105_01625T0	Z519_01792T0	98.9	637	7	0	1	637	1	637	0	1301
19	A105_02502T0	Z519_07036T0	98.9	1001	11	0	1	1001	1	1001	0	2037
6	A105_02739T0	Z519_07272T0	98.9	1004	11	0	1	1004	1	1004	0	2061
18	A105_03367T0	Z519_10189T0	98.9	544	6	0	52	595	1	544	0	1116
1	A105_04767T0	Z519_02594T0	98.9	181	2	0	1	181	1	181	9.00E-126	354
135	A105_07293T0	Z519_05869T0	98.9	545	5	1	1	544	1	545	0	1101
13	A105_08417T0	Z519_05633T0	98.9	453	5	0	1	453	2	454	0	941
1	A105_09134T0	Z519_05245T0	98.9	181	2	0	1	181	1	181	4.00E-130	365
6	A105_09378T0	Z519_01190T0	98.9	1187	12	1	1	1187	1	1186	0	2447
2	A105_10499T0	Z519_11375T0	98.9	634	7	0	1	634	1	634	0	1299
3	A105_13169T0	Z519_04355T0	98.9	273	3	0	1	273	15	287	0	556
1	A105_01294T0	Z519_08559T0	98.91	92	1	0	1	92	4	95	2.00E-60	181

57	A105_01644T0	Z519_01773T0	98.91	367	4	0	1	367	1	367	0	754
4	A105_02408T0	Z519_06936T0	98.91	459	5	0	162	620	320	778	0	882
1	A105_02472T0	Z519_07005T0	98.91	643	7	0	1	643	1	643	0	1319
67	A105_03146T0	Z519_09999T0	98.91	548	6	0	1	548	1	548	0	1116
1	A105_06372T0	Z519_10668T0	98.91	732	8	0	1	732	1	732	0	1430
9	A105_06390T0	Z519_10651T0	98.91	460	5	0	1	460	127	586	0	934
1	A105_06687T0	Z519_08982T0	98.91	92	1	0	1	92	1	92	8.00E-63	187
1	A105_11995T0	Z519_05736T0	98.91	458	5	0	1	458	30	487	0	934
8	A105_03064T0	Z519_11974T0	98.92	372	4	0	1	372	1	372	0	753
3	A105_03286T0	Z519_10134T0	98.92	185	2	0	1	185	1	185	4.00E-122	347
1	A105_05719T0	Z519_11131T0	98.92	185	2	0	1	185	1	185	9.00E-137	383
161	A105_06325T0	Z519_10700T0	98.92	554	6	0	1	554	1	554	0	1128
62	A105_06821T0	Z519_06679T0	98.92	279	3	0	1	279	264	542	0	568
4	A105_07037T0	Z519_06465T0	98.92	462	5	0	1	462	1	462	0	939
15	A105_07233T0	Z519_05810T0	98.92	279	3	0	1	279	1	279	0	565
4	A105_07270T0	Z519_05848T0	98.92	279	3	0	1	279	1	279	0	567
2	A105_09783T0	Z519_10437T0	98.92	1575	17	0	1	1575	1	1575	0	3160
1	A105_01441T0	Z519_11827T0	98.93	373	4	0	1	373	1	373	0	761
6	A105_03830T0	Z519_03148T0	98.93	748	8	0	1	748	58	805	0	1534
2	A105_06980T0	Z519_06516T0	98.93	843	9	0	1	843	1	843	0	1743
4	A105_08504T0	Z519_05547T0	98.93	469	5	0	1	469	60	528	0	966
1	A105_09542T0	Z519_01055T0	98.93	560	5	1	1	560	1	559	0	1150
9	A105_10165T0	Z519_12688T0	98.93	187	2	0	1	187	1	187	8.00E-137	383
14	A105_10980T0	Z519_11513T0	98.93	560	6	0	1	560	1	560	0	1128
22	A105_00143T0	Z519_00144T0	98.94	189	2	0	1	189	1	189	1.00E-139	390
1	A105_00398T0	Z519_00400T0	98.94	283	3	0	1	283	1	283	0	586
1	A105_01890T0	Z519_01576T0	98.94	470	5	0	1	470	1	470	0	972
2	A105_02861T0	Z519_07392T0	98.94	189	2	0	1	189	1	189	2.00E-136	382
3	A105_04447T0	Z519_02279T0	98.94	471	5	0	1	471	1	471	0	963
14	A105_06588T0	Z519_09076T0	98.94	565	6	0	1	565	1	565	0	1150
6	A105_06626T0	Z519_09039T0	98.94	282	3	0	1	282	1	282	0	580
1	A105_07386T0	Z519_05959T0	98.94	282	3	0	1	282	1	282	0	578
3	A105_08016T0	Z519_07853T0	98.94	377	4	0	1	377	1	377	0	761
26	A105_09518T0	Z519_01070T0	98.94	2446	26	0	1	2446	1	2446	0	5053
5	A105_11066T0	Z519_06866T0	98.94	662	7	0	1	662	1	662	0	1360

187	A105_11346T0	Z519_02113T0	98.94	283	3	0	1	283	1	283	0	574
15	A105_13445T0	Z519_12175T0	98.94	1326	14	0	1	1326	1	1326	0	2716
8	A105_01320T0	Z519_08583T0	98.95	570	6	0	1	570	1	570	0	1140
3	A105_02381T0	Z519_11590T0	98.95	190	2	0	1	190	1	190	4.00E-142	397
1	A105_02875T0	Z519_07406T0	98.95	95	1	0	1	95	1	95	5.00E-65	193
1	A105_05695T0	Z519_11155T0	98.95	191	2	0	1	191	1	191	1.00E-134	378
2	A105_07534T0	Z519_06096T0	98.95	381	4	0	1	381	1	381	0	769
2	A105_08453T0	Z519_05599T0	98.95	948	10	0	1	948	1	948	0	1949
67	A105_11337T0	Z519_02122T0	98.95	665	7	0	1	665	1	665	0	1370
1	A105_01284T0	Z519_08549T0	98.96	193	2	0	1	193	1	193	3.00E-137	384
28	A105_02938T0	Z519_12090T0	98.96	579	6	0	1	579	1	579	0	1145
121	A105_03854T0	Z519_03172T0	98.96	579	6	0	1	579	1	579	0	1176
7	A105_03891T0	Z519_03206T0	98.96	769	8	0	1	769	43	811	0	1578
1	A105_04800T0	Z519_02628T0	98.96	96	1	0	1	96	1	96	3.00E-65	194
1	A105_07829T0	Z519_07644T0	98.96	96	1	0	1	96	1	96	4.00E-58	176
44	A105_10483T0	Z519_11359T0	98.96	673	7	0	1	673	1	673	0	1392
1	A105_11188T0	Z519_08894T0	98.96	192	2	0	1	192	1	192	3.00E-137	384
5	A105_13208T0	Z519_12494T0	98.96	482	5	0	1	482	1	482	0	971
1	A105_13230T0	Z519_12516T0	98.96	192	2	0	1	192	1	192	1.00E-142	398
9	A105_00401T0	Z519_00403T0	98.97	486	5	0	1	486	1	486	0	991
60	A105_00435T0	Z519_00441T0	98.97	581	6	0	1	581	1	581	0	1162
1	A105_04105T0	Z519_03378T0	98.97	194	2	0	1	194	19	212	6.00E-139	390
40	A105_04477T0	Z519_02306T0	98.97	484	5	0	1	484	1	484	0	985
1	A105_05229T0	Z519_08103T0	98.97	195	2	0	1	195	1	195	3.00E-140	392
2	A105_05352T0	Z519_08225T0	98.97	1355	13	1	1	1355	1	1354	0	2550
1	A105_06151T0	Z519_04587T0	98.97	388	4	0	1	388	61	448	0	797
1	A105_06618T0	Z519_09047T0	98.97	194	2	0	12	205	1	194	2.00E-139	390
1	A105_07063T0	Z519_06437T0	98.97	290	3	0	1	290	1	290	0	594
2	A105_07219T0	Z519_05797T0	98.97	97	1	0	55	151	4	100	4.00E-65	196
7	A105_07435T0	Z519_06007T0	98.97	484	5	0	1	484	1	484	0	996
11	A105_08722T0	Z519_03936T0	98.97	1070	11	0	1	1070	1	1070	0	2192
150	A105_08751T0	Z519_03906T0	98.97	292	3	0	1	292	1	292	0	592
1	A105_10066T0	Z519_04105T0	98.97	387	4	0	1	387	1	387	0	785
61	A105_10306T0	Z519_10971T0	98.97	585	6	0	1	585	1	585	0	1165
131	A105_10564T0	Z519_12580T0	98.97	290	3	0	1	290	1	290	0	592

2	A105_11019T0	Z519_06818T0	98.97	291	3	0	1	291	1	291	0	585
15	A105_11712T0	Z519_02967T0	98.97	2042	17	1	1	2042	24	2061	0	4128
1	A105_12896T0	Z519_07500T0	98.97	870	9	0	1	870	1	870	0	1766
27	A105_13102T0	Z519_11230T0	98.97	389	4	0	1	389	1	389	0	795
2	A105_00035T0	Z519_00035T0	98.98	293	3	0	1	293	1	293	0	604
9	A105_00466T0	Z519_00473T0	98.98	392	1	1	1	389	1	392	0	791
1	A105_01226T0	Z519_08494T0	98.98	392	4	0	1	392	1	392	0	799
1	A105_01386T0	Z519_11883T0	98.98	2153	22	0	1	2153	1	2153	0	4436
2	A105_03111T0	Z519_09964T0	98.98	295	3	0	1	295	1	295	0	608
17	A105_03997T0	Z519_03295T0	98.98	294	3	0	1	294	1	294	0	575
80	A105_04885T0	Z519_02709T0	98.98	885	9	0	1	885	1	885	0	1812
11	A105_00024T0	Z519_00023T0	98.99	596	6	0	1	596	1	596	0	1222
1	A105_00122T0	Z519_00122T0	98.99	395	4	0	1	395	1	395	0	793
1	A105_02866T0	Z519_07397T0	98.99	298	3	0	1	298	1	298	0	604
72	A105_04299T0	Z519_03579T0	98.99	495	5	0	1	495	1	495	0	1004
3	A105_04632T0	Z519_02459T0	98.99	296	3	0	1	296	1	296	0	599
54	A105_05390T0	Z519_08264T0	98.99	696	7	0	1	696	1	696	0	1421
1	A105_08895T0	Z519_03758T0	98.99	99	1	0	1	99	1	99	9.00E-65	193
1	A105_12395T0	Z519_06280T0	98.99	99	1	0	1	99	1	99	1.00E-65	195
3	A105_12582T0	Z519_05461T0	98.99	199	2	0	1	199	1	199	3.00E-136	383
42	A105_00565T0	Z519_00576T0	99	502	5	0	1	502	1	502	0	1025
2	A105_02271T0	Z519_11706T0	99	201	2	0	1	201	1	201	2.00E-146	408
1	A105_03789T0	Z519_03111T0	99	301	3	0	3	303	17	317	0	608
1	A105_03904T0	Z519_03218T0	99	898	9	0	1	898	1	898	0	1839
5	A105_07973T0	Z519_07811T0	99	701	7	0	1	701	1	701	0	1426
29	A105_08478T0	Z519_05574T0	99	798	5	1	1	798	1	795	0	1581
1	A105_09195T0	Z519_05309T0	99	401	4	0	1	401	1	401	0	809
50	A105_09877T0	Z519_10341T0	99	299	3	0	1	299	1	299	0	615
3	A105_10563T0	Z519_12581T0	99	499	5	0	1	499	15	513	0	1006
44	A105_10904T0	Z519_11444T0	99	500	5	0	1	500	1	500	0	1027
2	A105_11551T0	Z519_11545T0	99	903	9	0	1	903	1	903	0	1838
80	A105_13190T0	Z519_12475T0	99	402	4	0	1	402	20	421	0	830
38	A105_13307T0	Z519_05026T0	99	300	3	0	1	300	1	300	0	607
7	A105_01276T0	Z519_08540T0	99.01	302	3	0	1	302	1	302	0	626
1	A105_02040T0	Z519_01416T0	99.01	4326	42	1	1	4325	1	4326	0	8851

11	A105_03011T0	Z519_12018T0	99.01	607	6	0	1	607	1	607	0	1250
1	A105_04097T0	Z519_03370T0	99.01	507	5	0	1	507	81	587	0	1046
23	A105_06554T0	Z519_09111T0	99.01	604	6	0	126	729	33	636	0	1235
8	A105_09014T0	Z519_05119T0	99.01	304	3	0	1	304	1	304	0	629
1	A105_11743T0	Z519_02937T0	99.01	607	6	0	1	607	1	607	0	1261
24	A105_00585T0	Z519_00595T0	99.02	205	2	0	16	220	18	222	9.00E-150	419
1	A105_03488T0	Z519_09612T0	99.02	204	2	0	1	204	1	204	1.00E-146	409
2	A105_05188T0	Z519_08077T0	99.02	408	4	0	1	408	1	408	0	825
29	A105_08051T0	Z519_07886T0	99.02	508	5	0	1	508	1	508	0	1043
1	A105_08259T0	Z519_09481T0	99.02	204	2	0	1	204	1	204	5.00E-145	405
159	A105_10764T0	Z519_12301T0	99.02	512	5	0	1	512	1	512	0	1031
26	A105_12024T0	Z519_05705T0	99.02	511	5	0	1	511	1	511	0	1042
3	A105_00260T0	Z519_00262T0	99.03	516	5	0	1	516	1	516	0	1065
1	A105_01246T0	Z519_08512T0	99.03	206	2	0	1	206	1	206	1.00E-149	417
1	A105_03072T0	Z519_11966T0	99.03	411	4	0	1	411	1	411	0	846
85	A105_03674T0	Z519_02994T0	99.03	412	4	0	1	412	1	412	0	843
10	A105_04820T0	Z519_02645T0	99.03	413	4	0	1	413	1	413	0	850
2	A105_05261T0	Z519_08134T0	99.03	518	5	0	1	518	1	518	0	1063
22	A105_05297T0	Z519_08171T0	99.03	310	3	0	1	310	1	310	0	637
4	A105_06006T0	Z519_04730T0	99.03	514	5	0	1	514	1	514	0	1045
5	A105_07094T0	Z519_06405T0	99.03	620	6	0	1	620	1	620	0	1265
3	A105_07346T0	Z519_05919T0	99.03	513	5	0	1	513	1	513	0	1048
1	A105_08820T0	Z519_03834T0	99.03	412	4	0	1	412	1	412	0	840
7	A105_08886T0	Z519_03767T0	99.03	103	1	0	1	103	117	219	3.00E-71	214
1	A105_09334T0	Z519_01232T0	99.03	309	3	0	1	309	1	309	0	630
10	A105_09655T0	Z519_10549T0	99.03	722	7	0	1	722	1	722	0	1483
6	A105_09848T0	Z519_10369T0	99.03	722	7	0	1	722	1	722	0	1497
19	A105_09902T0	Z519_10315T0	99.03	309	3	0	24	332	1	309	0	632
1	A105_10014T0	Z519_04156T0	99.03	207	2	0	1	207	1	207	2.00E-147	412
159	A105_10317T0	Z519_10982T0	99.03	518	5	0	1	518	1	518	0	1044
1	A105_12373T0	Z519_12457T0	99.03	617	6	0	1	617	1	617	0	1242
2	A105_12824T0	Z519_12544T0	99.03	309	3	0	1	309	1	309	0	645
4	A105_00016T0	Z519_00015T0	99.04	312	3	0	1	312	1	312	0	647
1	A105_02232T0	Z519_11745T0	99.04	104	1	0	1	104	55	158	3.00E-70	209
1	A105_03948T0	Z519_03247T0	99.04	104	1	0	1	104	1	104	2.00E-69	206

9	A105_07538T0	Z519_06101T0	99.04	417	4	0	1	417	1	417	0	851
1	A105_09920T0	Z519_04220T0	99.04	2090	20	0	1	2090	1	2090	0	4298
1	A105_12874T0	Z519_07477T0	99.04	104	1	0	1	104	1	104	2.00E-72	213
1	A105_01447T0	Z519_11821T0	99.05	105	1	0	1	105	1	105	8.00E-71	209
1	A105_02946T0	Z519_12080T0	99.05	210	2	0	1	210	1	210	8.00E-156	433
39	A105_03003T0	Z519_12026T0	99.05	525	5	0	1	525	1	525	0	1053
34	A105_04742T0	Z519_02572T0	99.05	423	4	0	1	423	1	423	0	873
4	A105_07785T0	Z519_07600T0	99.05	317	3	0	1	317	1	317	0	638
3	A105_07863T0	Z519_07694T0	99.05	422	4	0	1	422	44	465	0	875
2	A105_09822T0	Z519_10395T0	99.05	527	5	0	1	527	1	527	0	1095
4	A105_12507T0	Z519_02840T0	99.05	528	5	0	1	528	1	528	0	1069
78	A105_00528T0	Z519_00535T0	99.06	425	4	0	1	425	1	425	0	870
3	A105_03395T0	Z519_10216T0	99.06	530	5	0	1	530	1	530	0	1080
26	A105_03685T0	Z519_03004T0	99.06	318	3	0	1	318	1	318	0	650
8	A105_05377T0	Z519_08251T0	99.06	319	3	0	1	319	1	319	0	640
9	A105_06022T0	Z519_04714T0	99.06	532	5	0	1	532	1	532	0	1063
2	A105_06389T0	Z519_10651T0	99.06	106	1	0	1	106	1	106	9.00E-73	229
155	A105_06447T0	Z519_10594T0	99.06	532	5	0	1	532	1	532	0	1085
1	A105_07498T0	Z519_06064T0	99.06	213	2	0	1	213	1	213	2.00E-151	422
88	A105_07522T0	Z519_06087T0	99.06	532	5	0	1	532	1	532	0	1083
45	A105_09895T0	Z519_10322T0	99.06	318	3	0	1	318	1	318	0	645
2	A105_11859T0	Z519_01963T0	99.06	746	7	0	1	746	1	746	0	1522
42	A105_00676T0	Z519_00671T0	99.07	752	7	0	1	752	1	752	0	1536
1	A105_00893T0	Z519_00842T0	99.07	1070	10	0	1	1070	1	1070	0	2197
10	A105_01289T0	Z519_08554T0	99.07	324	3	0	1	324	1	324	0	662
2	A105_01330T0	Z519_08594T0	99.07	432	4	0	1	432	1	432	0	889
1	A105_02446T0	Z519_06978T0	99.07	752	7	0	1	752	1	752	0	1529
86	A105_03000T0	Z519_12029T0	99.07	536	5	0	1	536	1	536	0	1087
57	A105_03285T0	Z519_10133T0	99.07	321	3	0	35	355	1	321	0	654
155	A105_08266T0	Z519_09488T0	99.07	537	5	0	1	537	1	537	0	1080
6	A105_12845T0	Z519_07450T0	99.07	537	5	0	1	537	1	537	0	1076
1	A105_00158T0	Z519_00158T0	99.08	217	2	0	1	217	1	217	1.00E-155	433
3	A105_01578T0	Z519_01842T0	99.08	109	1	0	1	109	260	368	3.00E-73	224
87	A105_06095T0	Z519_04648T0	99.08	545	5	0	1	545	1	545	0	1117
162	A105_06410T0	Z519_10631T0	99.08	541	5	0	1	541	1	541	0	1100

23	A105_10458T0	Z519_11335T0	99.08	218	2	0	1	218	1	218	9.00E-163	451
9	A105_13191T0	Z519_12476T0	99.08	543	5	0	1	543	1	543	0	1090
3	A105_01252T0	Z519_08518T0	99.09	551	5	0	1	551	1	551	0	1135
1	A105_02399T0	Z519_06927T0	99.09	110	1	0	1	110	1	110	3.00E-75	221
1	A105_07425T0	Z519_05997T0	99.09	657	6	0	1	657	1	657	0	1363
1	A105_08532T0	Z519_05520T0	99.09	548	5	0	1	548	1	548	0	1117
105	A105_06287T0	Z519_10735T0	99.1	781	7	0	1	781	1	781	0	1567
1	A105_09303T0	Z519_01263T0	99.1	111	1	0	1	111	1	111	3.00E-71	210
3	A105_09809T0	Z519_10411T0	99.1	222	2	0	1	222	1	222	6.00E-158	439
1	A105_11736T0	Z519_02944T0	99.1	111	1	0	1	111	1	111	3.00E-77	226
48	A105_12584T0	Z519_05459T0	99.1	333	3	0	1	333	1	333	0	674
5	A105_00235T0	Z519_00234T0	99.11	225	2	0	1	225	1	225	2.00E-167	463
16	A105_01315T0	Z519_08579T0	99.11	448	4	0	1	448	1	448	0	915
19	A105_04534T0	Z519_02362T0	99.11	336	3	0	1	336	1	336	0	668
297	A105_07896T0	Z519_07727T0	99.11	903	8	0	1	903	1	903	0	1833
9	A105_09000T0	Z519_05105T0	99.11	564	5	0	1	564	1	564	0	1142
30	A105_11742T0	Z519_02938T0	99.11	336	3	0	1	336	1	336	0	687
1	A105_12359T0	Z519_12443T0	99.11	112	1	0	1	112	1	112	5.00E-78	228
1	A105_12984T0	Z519_04401T0	99.11	451	4	0	1	451	1	451	0	905
97	A105_00352T0	Z519_00350T0	99.12	571	5	0	1	571	1	571	0	1182
1	A105_01298T0	Z519_08563T0	99.12	227	2	0	1	227	1	227	1.00E-160	447
55	A105_01815T0	Z519_01650T0	99.12	341	3	0	1	341	1	341	0	694
1	A105_02089T0	Z519_01391T0	99.12	339	3	0	1	339	1	339	0	692
3	A105_02530T0	Z519_07060T0	99.12	340	3	0	1	340	1	340	0	704
2	A105_05317T0	Z519_08192T0	99.12	226	2	0	1	226	1	226	2.00E-164	456
1	A105_05407T0	Z519_08281T0	99.12	114	1	0	1	114	1	114	9.00E-71	209
1	A105_08706T0	Z519_03953T0	99.12	226	2	0	1	226	1	226	3.00E-163	453
1	A105_09862T0	Z519_10355T0	99.12	342	3	0	1	342	1	342	0	702
1	A105_12292T0	Z519_04462T0	99.12	228	2	0	1	228	1	228	8.00E-166	460
7	A105_13015T0	Z519_04432T0	99.12	796	7	0	1	796	1	796	0	1615
11	A105_00580T0	Z519_00590T0	99.13	804	7	0	1	804	1	804	0	1659
1	A105_01430T0	Z519_11838T0	99.13	458	4	0	1	458	1	458	0	916
12	A105_02532T0	Z519_07062T0	99.13	572	5	0	1	572	1	572	0	1177
1	A105_04252T0	Z519_03530T0	99.13	576	5	0	1	576	1	576	0	1191
1	A105_05354T0	Z519_08227T0	99.13	231	2	0	1	231	1	231	4.00E-169	469

2	A105_05463T0	Z519_08340T0	99.13	574	5	0	1	574	1	574	0	1174
2	A105_06569T0	Z519_09096T0	99.13	343	2	1	1	342	1	343	0	648
3	A105_12278T0	Z519_04476T0	99.13	231	2	0	1	231	1	231	2.00E-168	467
12	A105_12325T0	Z519_12413T0	99.13	807	7	0	1	807	1	807	0	1645
1	A105_00072T0	Z519_00071T0	99.14	694	6	0	1	694	1	694	0	1393
52	A105_01672T0	Z519_01744T0	99.14	347	3	0	4	350	1	347	0	710
75	A105_01942T0	Z519_01518T0	99.14	1162	10	0	1	1162	1	1162	0	2417
1	A105_04701T0	Z519_02531T0	99.14	116	1	0	34	149	1	116	5.00E-80	234
2	A105_07492T0	Z519_06057T0	99.14	1049	9	0	1	1049	1	1049	0	2159
2	A105_08656T0	Z519_04000T0	99.14	350	3	0	1	350	1	350	0	717
5	A105_00491T0	Z519_00495T0	99.15	471	4	0	1	471	1	471	0	956
6	A105_02126T0	Z519_01352T0	99.15	353	3	0	1	353	93	445	0	735
1	A105_02131T0	Z519_01347T0	99.15	117	1	0	1	117	1	117	1.00E-81	237
1	A105_03043T0	Z519_11994T0	99.15	236	2	0	4	239	1	236	6.00E-176	486
7	A105_04416T0	Z519_02248T0	99.15	353	3	0	1	353	1	353	0	726
37	A105_05610T0	Z519_03719T0	99.15	236	2	0	22	257	1	236	1.00E-168	469
8	A105_06568T0	Z519_09097T0	99.15	353	3	0	1	353	1	353	0	719
32	A105_06952T0	Z519_06545T0	99.15	352	3	0	1	352	1	352	0	721
1	A105_06993T0	Z519_06505T0	99.15	117	1	0	1	117	1	117	2.00E-70	209
6	A105_07004T0	Z519_06496T0	99.15	354	3	0	1	354	4	357	0	727
68	A105_09557T0	Z519_01039T0	99.15	354	3	0	1	354	1	354	0	719
1	A105_09891T0	Z519_10327T0	99.15	353	3	0	1	353	1	353	0	722
2	A105_10449T0	Z519_11326T0	99.15	118	1	0	1	118	1	118	1.00E-83	243
1	A105_11159T0	Z519_08917T0	99.15	353	3	0	1	353	1	353	0	723
1	A105_13039T0	Z519_04457T0	99.15	472	4	0	1	472	1	472	0	944
1	A105_13052T0	Z519_12116T0	99.15	1060	9	0	1	1060	1	1060	0	2163
61	A105_13168T0	Z519_04356T0	99.15	355	3	0	1	355	1	355	0	714
6	A105_04011T0	Z519_03308T0	99.16	476	4	0	1	476	1	476	0	979
1	A105_06673T0	Z519_08996T0	99.16	356	3	0	1	356	1	356	0	728
6	A105_08427T0	Z519_05623T0	99.16	359	3	0	1	359	1	359	0	739
1	A105_09352T0	Z519_01216T0	99.16	479	4	0	1	479	1	479	0	977
8	A105_10222T0	Z519_10888T0	99.16	477	4	0	1	477	1	477	0	978
3	A105_00459T0	Z519_00466T0	99.17	241	2	0	1	241	1	241	0	501
3	A105_00735T0	Z519_00728T0	99.17	482	4	0	1	482	203	684	0	1002
1	A105_02818T0	Z519_07348T0	99.17	121	1	0	1	121	1	121	7.00E-82	238

2	A105_03044T0	Z519_11993T0	99.17	480	4	0	1	480	1	480	0	989
1	A105_05449T0	Z519_08326T0	99.17	241	2	0	1	241	1	241	6.00E-178	491
1	A105_07665T0	Z519_06229T0	99.17	120	1	0	1	120	1	120	2.00E-79	268
1	A105_08959T0	Z519_05062T0	99.17	360	3	0	1	360	1	360	0	743
4	A105_09211T0	Z519_05324T0	99.17	1088	9	0	1	1088	1	1088	0	2231
36	A105_10914T0	Z519_11455T0	99.17	839	7	0	1	839	1	839	0	1735
6	A105_11955T0	Z519_05778T0	99.17	845	7	0	1	845	1	845	0	1724
24	A105_01468T0	Z519_11799T0	99.18	245	2	0	1	245	1	245	2.00E-179	496
3	A105_03675T0	Z519_02994T0	99.18	365	3	0	42	406	413	777	0	758
10	A105_03857T0	Z519_03175T0	99.18	855	7	0	1	855	1	855	0	1746
2	A105_04927T0	Z519_02752T0	99.18	243	2	0	20	262	100	342	2.00E-174	488
1	A105_05919T0	Z519_04815T0	99.18	367	3	0	1	367	1	367	0	761
30	A105_10158T0	Z519_12695T0	99.18	1342	11	0	1	1342	1	1342	0	2729
1	A105_11210T0	Z519_08873T0	99.18	367	3	0	1	367	1	367	0	748
4	A105_00255T0	Z519_00257T0	99.19	615	5	0	1	615	1	615	0	1251
8	A105_03977T0	Z519_03275T0	99.19	247	2	0	1	247	1	247	0	506
3	A105_05379T0	Z519_08253T0	99.19	124	1	0	1	124	1	124	3.00E-83	242
3	A105_05593T0	Z519_03703T0	99.19	369	3	0	25	393	1	369	0	761
1	A105_06762T0	Z519_06744T0	99.19	246	2	0	1	246	1	246	0	499
4	A105_06951T0	Z519_06546T0	99.19	495	4	0	1	495	1	495	0	1018
1	A105_07427T0	Z519_05999T0	99.19	123	1	0	1	123	1	123	5.00E-86	249
2	A105_08022T0	Z519_07859T0	99.19	738	6	0	1	738	1	738	0	1518
2	A105_08029T0	Z519_07866T0	99.19	742	6	0	1	742	164	905	0	1523
1	A105_11855T0	Z519_01959T0	99.19	123	1	0	1	123	1	123	1.00E-70	217
1	A105_11953T0	Z519_05780T0	99.19	123	1	0	1	123	1	123	2.00E-85	248
43	A105_13218T0	Z519_12503T0	99.19	494	4	0	1	494	1	494	0	1009
1	A105_01477T0	Z519_11790T0	99.2	249	2	0	1	249	1	249	0	505
157	A105_03574T0	Z519_09696T0	99.2	497	4	0	1	497	1	497	0	998
5	A105_03592T0	Z519_09719T0	99.2	622	5	0	1	622	1	622	0	1266
1	A105_07085T0	Z519_06414T0	99.2	373	3	0	1	373	1	373	0	755
3	A105_07530T0	Z519_06092T0	99.2	500	4	0	1	500	1	500	0	1026
5	A105_07614T0	Z519_06177T0	99.2	500	4	0	1	500	1	500	0	1011
1	A105_10254T0	Z519_10919T0	99.2	125	1	0	1	125	46	170	5.00E-85	248
5	A105_13080T0	Z519_11215T0	99.2	125	1	0	98	222	1	125	2.00E-60	188
2	A105_04404T0	Z519_02235T0	99.21	126	1	0	1	126	1	126	1.00E-90	261

2	A105_04408T0	Z519_02239T0	99.21	253	2	0	1	253	1	253	0	511
5	A105_06482T0	Z519_09182T0	99.21	507	4	0	1	507	1	507	0	1038
2	A105_11001T0	Z519_06797T0	99.21	380	3	0	1	380	1	380	0	769
1	A105_12892T0	Z519_07496T0	99.21	254	2	0	1	254	1	254	0	513
2	A105_00075T0	Z519_00074T0	99.22	255	2	0	1	255	1	255	0	509
12	A105_00760T0	Z519_00753T0	99.22	258	2	0	1	258	1	258	0	534
35	A105_02629T0	Z519_07158T0	99.22	383	3	0	1	383	1	383	0	778
6	A105_03651T0	Z519_09779T0	99.22	899	7	0	1	899	19	917	0	1875
188	A105_03829T0	Z519_03147T0	99.22	255	2	0	1	255	1	255	0	518
205	A105_04556T0	Z519_02384T0	99.22	257	2	0	21	277	1	257	0	516
1	A105_04928T0	Z519_02753T0	99.22	256	2	0	1	256	1	256	0	504
11	A105_05777T0	Z519_04960T0	99.22	383	3	0	1	383	1	383	0	788
1	A105_07505T0	Z519_06071T0	99.22	128	1	0	1	128	1	128	4.00E-89	257
1	A105_08705T0	Z519_03954T0	99.22	128	1	0	1	128	1	128	5.00E-87	252
2	A105_12249T0	Z519_04504T0	99.22	1151	9	0	1	1151	1	1151	0	2353
21	A105_12315T0	Z519_12401T0	99.22	643	5	0	1	643	1	643	0	1316
184	A105_13131T0	Z519_11257T0	99.22	258	2	0	7	264	1	258	0	524
34	A105_01237T0	Z519_08504T0	99.23	775	6	0	1	775	1	775	0	1582
23	A105_02082T0	Z519_01397T0	99.23	391	3	0	1	391	1	391	0	785
8	A105_09143T0	Z519_05253T0	99.23	389	3	0	1	389	1	389	0	791
3	A105_11553T0	Z519_11543T0	99.23	905	7	0	1	905	1	905	0	1821
1	A105_12277T0	Z519_04477T0	99.23	1680	13	0	1	1680	1	1680	0	3459
1	A105_01424T0	Z519_11844T0	99.24	132	1	0	1	132	1	132	4.00E-92	265
102	A105_08899T0	Z519_03754T0	99.24	525	4	0	1	525	1	525	0	1085
89	A105_08937T0	Z519_05040T0	99.24	524	4	0	1	524	1	524	0	1074
1	A105_09514T0	Z519_01074T0	99.24	131	0	1	1	130	1	131	1.00E-91	264
1	A105_11899T0	Z519_02002T0	99.24	525	4	0	1	525	1	525	0	1073
1	A105_12387T0	Z519_06289T0	99.24	393	3	0	1	393	1	393	0	806
1	A105_13278T0	Z519_12154T0	99.24	262	2	0	1	262	1	262	0	533
1	A105_01466T0	Z519_11801T0	99.25	134	1	0	1	134	1	134	3.00E-89	258
39	A105_01522T0	Z519_01897T0	99.25	532	4	0	1	532	1	532	0	1068
155	A105_02242T0	Z519_11737T0	99.25	533	4	0	1	533	1	533	0	1082
3	A105_03747T0	Z519_03069T0	99.25	133	1	0	1	133	1	133	5.00E-97	278
1	A105_04258T0	Z519_03536T0	99.25	265	2	0	1	265	1	265	0	536
1	A105_05243T0	Z519_08115T0	99.25	133	1	0	1	133	1	133	3.00E-94	270

7	A105_05680T0	Z519_11169T0	99.25	267	2	0	1	267	1	267	0	542
1	A105_11988T0	Z519_05744T0	99.25	266	2	0	1	266	1	266	0	534
1	A105_00033T0	Z519_00033T0	99.26	542	4	0	1	542	1	542	0	1123
33	A105_00082T0	Z519_00081T0	99.26	680	4	1	1	679	9	688	0	1290
1	A105_00496T0	Z519_00501T0	99.26	406	3	0	1	406	1	406	0	840
1	A105_03554T0	Z519_09676T0	99.26	269	2	0	1	269	1	269	0	534
155	A105_06537T0	Z519_09128T0	99.26	541	4	0	1	541	1	541	0	1105
1	A105_08844T0	Z519_03809T0	99.26	136	1	0	1	136	1	136	4.00E-89	259
65	A105_11241T0	Z519_08836T0	99.26	672	5	0	1	672	1	672	0	1367
37	A105_11259T0	Z519_08818T0	99.26	538	4	0	33	570	1	538	0	1110
3	A105_05102T0	Z519_07992T0	99.27	959	7	0	1	959	1	959	0	1956
1	A105_06914T0	Z519_06585T0	99.27	274	2	0	1	274	1	274	0	556
8	A105_07400T0	Z519_05972T0	99.27	688	5	0	1	688	1	688	0	1388
24	A105_07929T0	Z519_07767T0	99.27	411	3	0	1	411	1	411	0	840
1	A105_10204T0	Z519_10870T0	99.27	274	2	0	1	274	1	274	0	559
9	A105_11705T0	Z519_02974T0	99.27	549	4	0	1	549	1	549	0	1110
1	A105_11946T0	Z519_05787T0	99.27	137	1	0	4	140	9	145	3.00E-95	274
1	A105_13017T0	Z519_04434T0	99.27	681	5	0	1	681	1	681	0	1382
14	A105_00089T0	Z519_00088T0	99.28	278	2	0	1	278	1	278	0	564
5	A105_00411T0	Z519_00412T0	99.28	139	1	0	1	139	1	139	4.00E-99	283
2	A105_01503T0	Z519_01911T0	99.28	975	7	0	1	975	1	975	0	1999
4	A105_02172T0	Z519_01307T0	99.28	138	1	0	1	138	1	138	7.00E-94	270
82	A105_02482T0	Z519_07016T0	99.28	414	3	0	1	414	1	414	0	847
2	A105_04580T0	Z519_02408T0	99.28	278	2	0	1	278	1	278	0	565
2	A105_05326T0	Z519_08200T0	99.28	416	3	0	1	416	1	416	0	852
4	A105_07146T0	Z519_06355T0	99.28	696	4	1	1	695	1	696	0	1420
1	A105_08200T0	Z519_09424T0	99.28	138	1	0	1	138	1	138	3.00E-92	266
1	A105_08430T0	Z519_05621T0	99.28	276	2	0	1	276	1	276	0	562
1	A105_08534T0	Z519_05518T0	99.28	276	2	0	1	276	1	276	0	563
16	A105_08832T0	Z519_03821T0	99.28	555	4	0	1	555	1	555	0	1145
9	A105_09113T0	Z519_05223T0	99.28	276	2	0	1	276	1	276	0	561
73	A105_09304T0	Z519_01262T0	99.28	415	3	0	1	415	1	415	0	848
1	A105_10870T0	Z519_11408T0	99.28	138	1	0	1	138	1	138	1.00E-98	282
11	A105_12083T0	Z519_12343T0	99.28	139	1	0	1	139	1	139	4.00E-101	288
1	A105_00680T0	Z519_00675T0	99.29	705	5	0	1	705	1	705	0	1457

72	A105_02441T0	Z519_06973T0	99.29	564	4	0	1	564	1	564	0	1142
1	A105_02648T0	Z519_07180T0	99.29	702	5	0	1	702	1	702	0	1409
2	A105_09049T0	Z519_05161T0	99.29	425	3	0	1	425	1	425	0	858
1	A105_09642T0	Z519_10562T0	99.29	425	3	0	1	425	1	425	0	853
7	A105_12390T0	Z519_06284T0	99.29	280	2	0	1	280	1	280	0	563
6	A105_01437T0	Z519_11831T0	99.3	142	1	0	1	142	1	142	2.00E-102	292
9	A105_03815T0	Z519_03134T0	99.3	286	2	0	1	286	1	286	0	586
79	A105_11758T0	Z519_02922T0	99.3	428	3	0	1	428	1	428	0	882
1	A105_12322T0	Z519_12409T0	99.3	143	1	0	1	143	1	143	1.00E-103	295
1	A105_00059T0	Z519_00058T0	99.31	435	3	0	1	435	1	435	0	884
17	A105_00598T0	Z519_00608T0	99.31	728	5	0	1	728	1	728	0	1463
6	A105_00632T0	Z519_00643T0	99.31	726	5	0	1	726	1	726	0	1484
1	A105_01187T0	Z519_08455T0	99.31	144	1	0	1	144	69	212	1.00E-104	300
1	A105_02634T0	Z519_07163T0	99.31	288	2	0	1	288	1	288	0	593
11	A105_02876T0	Z519_07407T0	99.31	288	2	0	1	288	1	288	0	576
19	A105_03379T0	Z519_10200T0	99.31	288	2	0	1	288	1	288	0	593
2	A105_04507T0	Z519_02335T0	99.31	290	2	0	1	290	17	306	0	588
1	A105_06407T0	Z519_10634T0	99.31	1020	7	0	1	1020	77	1096	0	2087
2	A105_09753T0	Z519_10468T0	99.31	144	1	0	1	144	58	201	2.00E-102	294
3	A105_10478T0	Z519_11354T0	99.31	874	6	0	1	874	1	874	0	1783
1	A105_12883T0	Z519_07486T0	99.31	289	2	0	1	289	1	289	0	572
97	A105_01395T0	Z519_11872T0	99.32	438	3	0	1	438	1	438	0	900
26	A105_03193T0	Z519_10044T0	99.32	294	2	0	1	294	1	294	0	612
1	A105_04316T0	Z519_03594T0	99.32	444	3	0	1	444	1	444	0	910
1	A105_04651T0	Z519_02477T0	99.32	294	2	0	1	294	255	548	0	606
1	A105_05248T0	Z519_08119T0	99.32	146	1	0	1	146	32	177	4.00E-101	290
1	A105_05424T0	Z519_08299T0	99.32	591	4	0	1	591	1	591	0	1226
15	A105_12159T0	Z519_09275T0	99.32	592	4	0	1	592	1	592	0	1217
19	A105_01114T0	Z519_08388T0	99.33	298	2	0	1	298	1	298	0	611
1	A105_04613T0	Z519_02440T0	99.33	149	1	0	1	149	1	149	2.00E-108	312
1	A105_09719T0	Z519_10489T0	99.33	1927	12	1	1	1926	1	1927	0	3885
4	A105_10259T0	Z519_10924T0	99.33	448	3	0	14	461	15	462	0	936
2	A105_12274T0	Z519_04480T0	99.33	149	1	0	1	149	1	149	1.00E-108	308
4	A105_12847T0	Z519_07452T0	99.33	149	1	0	1	149	1	149	3.00E-106	302
6	A105_02098T0	Z519_01382T0	99.34	453	3	0	1	453	1	453	0	927

2	A105_02437T0	Z519_06969T0	99.34	152	1	0	1	152	1	152	4.00E-108	307
93	A105_04107T0	Z519_03380T0	99.34	458	3	0	1	458	1	458	0	935
1	A105_05455T0	Z519_08332T0	99.34	152	1	0	1	152	1	152	8.00E-107	304
1	A105_07512T0	Z519_06078T0	99.34	301	2	0	1	301	1	301	0	611
3	A105_08892T0	Z519_03761T0	99.34	151	1	0	1	151	1	151	1.00E-99	290
4	A105_09748T0	Z519_10473T0	99.34	603	4	0	1	603	1	603	0	1238
1	A105_10042T0	Z519_04124T0	99.34	151	1	0	1	151	1	151	3.00E-107	305
7	A105_10670T0	Z519_09857T0	99.34	304	2	0	1	304	1	304	0	632
1	A105_02327T0	Z519_11647T0	99.35	153	1	0	1	153	1	153	1.00E-106	304
1	A105_02864T0	Z519_07395T0	99.35	307	2	0	1	307	1	307	0	612
1	A105_06865T0	Z519_06637T0	99.35	153	1	0	1	153	1	153	1.00E-110	314
2	A105_08806T0	Z519_03848T0	99.35	464	3	0	1	464	1	464	0	967
6	A105_08900T0	Z519_03753T0	99.35	462	3	0	1	462	1	462	0	960
1	A105_09828T0	Z519_10389T0	99.35	155	1	0	2	156	21	175	4.00E-110	313
13	A105_11567T0	Z519_11529T0	99.35	766	5	0	1	766	1	766	0	1577
1	A105_04366T0	Z519_02193T0	99.36	311	2	0	1	311	1	311	0	632
7	A105_05031T0	Z519_07921T0	99.36	471	3	0	1	471	21	491	0	952
1	A105_06011T0	Z519_04725T0	99.36	157	1	0	1	157	1	157	3.00E-114	323
2	A105_10424T0	Z519_11300T0	99.36	931	6	0	1	931	1	931	0	1877
30	A105_11781T0	Z519_02900T0	99.36	313	2	0	1	313	1	313	0	647
1	A105_04801T0	Z519_02629T0	99.37	159	1	0	1	159	1	159	4.00E-110	313
1	A105_05095T0	Z519_07985T0	99.37	158	1	0	1	158	1	158	4.00E-113	320
21	A105_05423T0	Z519_08298T0	99.37	158	1	0	1	158	1	158	3.00E-114	323
3	A105_11696T0	Z519_08599T0	99.37	158	1	0	1	158	1	158	8.00E-115	325
2	A105_00248T0	Z519_00247T0	99.38	325	2	0	2	326	75	399	0	676
6	A105_04160T0	Z519_03439T0	99.38	321	2	0	1	321	1	321	0	667
7	A105_05314T0	Z519_08189T0	99.38	322	2	0	1	322	1	322	0	667
4	A105_07482T0	Z519_06048T0	99.38	641	3	1	1	641	1	640	0	1312
2	A105_08749T0	Z519_03908T0	99.38	320	2	0	187	506	1	320	0	670
69	A105_08851T0	Z519_03802T0	99.38	645	4	0	1	645	1	645	0	1345
5	A105_10223T0	Z519_10889T0	99.38	1763	11	0	1	1763	1	1763	0	3634
5	A105_10891T0	Z519_11430T0	99.38	484	3	0	1	484	67	550	0	996
1	A105_11539T0	Z519_11557T0	99.38	485	3	0	1	485	1	485	0	986
30	A105_12050T0	Z519_05681T0	99.38	322	2	0	1	322	1	322	0	667
40	A105_13110T0	Z519_11236T0	99.38	480	3	0	1	480	1	480	0	980

1	A105_00378T0	Z519_00381T0	99.39	163	1	0	1	163	1	163	2.00E-117	332
1	A105_07191T0	Z519_06309T0	99.39	165	1	0	1	165	1	165	5.00E-118	333
1	A105_07497T0	Z519_06063T0	99.39	164	1	0	3	166	20	183	1.00E-116	330
17	A105_08503T0	Z519_05548T0	99.39	326	2	0	1	326	1	326	0	671
3	A105_09069T0	Z519_05180T0	99.39	816	5	0	1	816	1	816	0	1683
31	A105_02464T0	Z519_06996T0	99.4	167	1	0	1	167	1	167	6.00E-117	331
1	A105_04930T0	Z519_02754T0	99.4	166	1	0	1	166	1	166	3.00E-119	337
145	A105_05181T0	Z519_08070T0	99.4	502	3	0	1	502	1	502	0	1016
14	A105_06425T0	Z519_10616T0	99.4	331	2	0	1	331	1	331	0	679
6	A105_07947T0	Z519_07789T0	99.4	2497	15	0	1	2497	1	2497	0	5145
1	A105_09053T0	Z519_05165T0	99.4	166	1	0	1	166	1	166	1.00E-119	338
33	A105_11172T0	Z519_08906T0	99.4	333	2	0	1	333	1	333	0	689
1	A105_11336T0	Z519_02123T0	99.4	498	3	0	1	498	56	553	0	1037
1	A105_11850T0	Z519_01956T0	99.4	166	1	0	1	166	1	166	1.00E-111	318
1	A105_01038T0	Z519_00962T0	99.41	849	5	0	1	849	1	849	0	1766
1	A105_03807T0	Z519_03128T0	99.41	850	5	0	1	850	1	850	0	1706
1	A105_04438T0	Z519_02269T0	99.41	170	1	0	14	183	1	170	9.00E-120	339
3	A105_04966T0	Z519_02790T0	99.41	339	2	0	34	372	47	385	0	686
3	A105_06163T0	Z519_04577T0	99.41	505	3	0	1	505	1	505	0	1031
21	A105_08971T0	Z519_05074T0	99.41	170	1	0	1	170	102	271	2.00E-126	359
9	A105_12276T0	Z519_04478T0	99.41	1187	7	0	1	1187	1	1187	0	2447
7	A105_13324T0	Z519_05009T0	99.41	507	3	0	1	507	1	507	0	1017
1	A105_01288T0	Z519_08553T0	99.42	171	1	0	1	171	1	171	2.00E-121	343
3	A105_01800T0	Z519_01664T0	99.42	343	2	0	1	343	1	343	0	692
2	A105_03679T0	Z519_02998T0	99.42	343	2	0	1	343	1	343	0	683
8	A105_08049T0	Z519_07884T0	99.42	517	3	0	1	517	1	517	0	1056
1	A105_08964T0	Z519_05067T0	99.42	1029	6	0	1	1029	1	1029	0	2120
6	A105_10172T0	Z519_12681T0	99.42	520	3	0	1	520	1	520	0	1047
16	A105_13014T0	Z519_04431T0	99.42	345	2	0	1	345	1	345	0	707
48	A105_13032T0	Z519_04449T0	99.42	690	4	0	1	690	1	690	0	1436
18	A105_01946T0	Z519_01514T0	99.43	350	2	0	1	350	1	350	0	724
1	A105_02359T0	Z519_11612T0	99.43	174	1	0	1	174	1	174	2.00E-119	338
1	A105_03069T0	Z519_11969T0	99.43	176	1	0	1	176	1	176	4.00E-127	357
1	A105_04244T0	Z519_03522T0	99.43	174	1	0	1	174	1	174	8.00E-128	359
1	A105_07832T0	Z519_07647T0	99.43	526	3	0	1	526	118	643	0	1093

7	A105_09159T0	Z519_05270T0	99.43	700	4	0	1	700	1	700	0	1433
5	A105_10308T0	Z519_10973T0	99.43	176	1	0	1	176	1	176	1.00E-129	363
1	A105_11856T0	Z519_01960T0	99.43	176	1	0	1	176	1	176	5.00E-127	357
1	A105_00542T0	Z519_00552T0	99.44	177	1	0	1	177	1	177	3.00E-125	353
1	A105_02698T0	Z519_07231T0	99.44	180	1	0	1	180	1	180	8.00E-133	372
8	A105_03201T0	Z519_10052T0	99.44	354	2	0	1	354	41	394	0	739
5	A105_03905T0	Z519_03219T0	99.44	358	2	0	1	358	1	358	0	746
4	A105_11111T0	Z519_06913T0	99.44	358	2	0	1	358	1	358	0	726
15	A105_00624T0	Z519_00634T0	99.45	362	2	0	1	362	1	362	0	756
8	A105_01467T0	Z519_11800T0	99.45	364	2	0	1	364	1	364	0	744
1	A105_04549T0	Z519_02376T0	99.45	362	2	0	1	362	1	362	0	736
1	A105_06121T0	Z519_04615T0	99.45	183	1	0	1	183	1	183	7.00E-136	380
1	A105_11351T0	Z519_02108T0	99.45	365	2	0	1	365	1	365	0	761
2	A105_00243T0	Z519_00242T0	99.46	1102	6	0	1	1102	1	1102	0	2268
12	A105_00748T0	Z519_00741T0	99.46	184	1	0	1	184	1	184	1.00E-133	375
1	A105_02848T0	Z519_07378T0	99.46	924	5	0	1	924	1	924	0	1893
7	A105_03167T0	Z519_10017T0	99.46	735	4	0	1	735	1	735	0	1523
1	A105_07689T0	Z519_07512T0	99.46	553	3	0	1	553	1	553	0	1138
4	A105_09433T0	Z519_01153T0	99.46	556	3	0	2	557	1	556	0	1127
2	A105_09450T0	Z519_01136T0	99.46	747	4	0	1	747	1	747	0	1556
4	A105_00357T0	Z519_00355T0	99.47	564	3	0	1	564	1	564	0	1155
1	A105_01050T0	Z519_00973T0	99.47	188	1	0	22	209	3	190	6.00E-137	384
15	A105_02468T0	Z519_07000T0	99.47	188	1	0	1	188	1	188	1.00E-136	383
1	A105_02885T0	Z519_07416T0	99.47	189	1	0	1	189	1	189	2.00E-139	390
16	A105_03967T0	Z519_03266T0	99.47	187	1	0	1	187	1	187	1.00E-137	385
1	A105_08586T0	Z519_04059T0	99.47	188	1	0	1	188	1	188	9.00E-140	390
1	A105_09448T0	Z519_01138T0	99.47	189	1	0	1	189	1	189	2.00E-132	372
5	A105_04708T0	Z519_02538T0	99.48	382	2	0	1	382	7	388	0	775
15	A105_07012T0	Z519_06489T0	99.48	191	1	0	1	191	1	191	3.00E-140	392
52	A105_07416T0	Z519_05988T0	99.48	385	2	0	1	385	1	385	0	783
3	A105_03127T0	Z519_09980T0	99.49	781	4	0	1	781	1	781	0	1609
3	A105_03898T0	Z519_03213T0	99.49	781	4	0	1	781	1	781	0	1616
39	A105_04368T0	Z519_02195T0	99.49	584	3	0	1	584	1	584	0	1202
1	A105_05343T0	Z519_08216T0	99.49	196	1	0	1	196	1	196	6.00E-141	394
4	A105_06313T0	Z519_10711T0	99.49	594	3	0	1	594	1	594	0	1215

3	A105_06667T0	Z519_09002T0	99.49	198	1	0	1	198	1	198	4.00E-141	395
7	A105_06741T0	Z519_06769T0	99.49	583	3	0	1	583	1	583	0	1157
28	A105_08061T0	Z519_07896T0	99.49	395	2	0	1	395	1	395	0	811
49	A105_03012T0	Z519_12017T0	99.5	397	2	0	1	397	1	397	0	819
95	A105_03684T0	Z519_03003T0	99.5	596	3	0	92	687	1	596	0	1222
3	A105_08570T0	Z519_04073T0	99.5	199	1	0	1	199	1	199	3.00E-146	408
1	A105_08835T0	Z519_03818T0	99.5	201	1	0	1	201	1	201	4.00E-147	410
7	A105_08893T0	Z519_03760T0	99.5	806	4	0	1	806	1	806	0	1674
16	A105_08967T0	Z519_05070T0	99.5	400	2	0	1	400	1	400	0	828
1	A105_09342T0	Z519_01225T0	99.5	201	1	0	1	201	1	201	1.00E-144	404
1	A105_12338T0	Z519_12424T0	99.5	199	1	0	1	199	1	199	2.00E-147	411
7	A105_01242T0	Z519_08509T0	99.51	206	1	0	1	206	41	246	1.00E-146	411
1	A105_03348T0	Z519_10172T0	99.51	411	2	0	1	411	1	411	0	848
22	A105_05344T0	Z519_08217T0	99.51	204	1	0	1	204	1	204	1.00E-151	422
2	A105_09541T0	Z519_01056T0	99.51	405	2	0	1	405	1	405	0	810
3	A105_10756T0	Z519_09944T0	99.51	203	1	0	1	203	18	220	7.00E-150	418
156	A105_10809T0	Z519_12259T0	99.51	405	2	0	1	405	1	405	0	831
1	A105_11191T0	Z519_08891T0	99.51	204	1	0	1	204	1	204	7.00E-147	410
1	A105_03089T0	Z519_11949T0	99.52	414	2	0	1	414	1	414	0	849
1	A105_03861T0	Z519_03179T0	99.52	209	1	0	1	209	1	209	8.00E-148	413
1	A105_07740T0	Z519_07554T0	99.52	207	1	0	1	207	1	207	3.00E-152	424
11	A105_09375T0	Z519_01194T0	99.52	413	2	0	1	413	1	413	0	832
19	A105_11954T0	Z519_05779T0	99.52	414	2	0	1	414	1	414	0	847
26	A105_07701T0	Z519_07523T0	99.53	212	1	0	1	212	1	212	8.00E-155	431
26	A105_11034T0	Z519_06834T0	99.53	211	1	0	1	211	1	211	3.00E-156	434
2	A105_11501T0	Z519_08779T0	99.53	213	1	0	1	213	1	213	3.00E-159	442
2	A105_02647T0	Z519_07179T0	99.54	439	2	0	1	439	1	439	0	912
4	A105_05282T0	Z519_08156T0	99.54	432	1	1	1	432	1	431	0	874
1	A105_11891T0	Z519_01994T0	99.54	431	2	0	1	431	1	431	0	887
1	A105_12385T0	Z519_12469T0	99.54	651	3	0	1	651	1	651	0	1332
1	A105_01607T0	Z519_01811T0	99.55	448	2	0	1	448	1	448	0	886
2	A105_02374T0	Z519_11598T0	99.55	221	1	0	1	221	1	221	2.00E-161	448
2	A105_03666T0	Z519_02987T0	99.55	441	2	0	1	441	1	441	0	907
1	A105_07641T0	Z519_06205T0	99.55	223	1	0	1	223	1	223	2.00E-162	451
12	A105_11497T0	Z519_08775T0	99.55	441	2	0	1	441	1	441	0	896

25	A105_00261T0	Z519_00263T0	99.56	459	2	0	1	459	1	459	0	919
3	A105_00445T0	Z519_00452T0	99.56	227	1	0	1	227	1	227	2.00E-168	466
11	A105_03147T0	Z519_10000T0	99.56	457	2	0	1	457	1	457	0	947
4	A105_03613T0	Z519_09741T0	99.56	226	1	0	1	226	1	226	2.00E-165	459
25	A105_05789T0	Z519_04944T0	99.56	681	3	0	1	681	184	864	0	1401
4	A105_07418T0	Z519_05990T0	99.56	458	2	0	1	458	1	458	0	953
1	A105_07585T0	Z519_06148T0	99.56	454	2	0	1	454	1	454	0	938
1	A105_10412T0	Z519_11289T0	99.56	226	1	0	1	226	1	226	6.00E-168	465
8	A105_12377T0	Z519_12462T0	99.56	679	3	0	1	679	1	679	0	1367
5	A105_00519T0	Z519_00526T0	99.57	231	1	0	1	231	1	231	4.00E-171	474
2	A105_07786T0	Z519_07601T0	99.57	469	2	0	1	469	1	469	0	958
4	A105_03253T0	Z519_10102T0	99.58	707	3	0	1	707	42	748	0	1443
1	A105_07843T0	Z519_07672T0	99.58	477	2	0	1	477	1	477	0	997
1	A105_07995T0	Z519_07831T0	99.58	481	2	0	1	481	1	481	0	1001
1	A105_13310T0	Z519_05023T0	99.58	239	1	0	1	239	1	239	8.00E-175	484
5	A105_00706T0	Z519_00700T0	99.59	490	2	0	1	490	1	490	0	1009
1	A105_01234T0	Z519_08501T0	99.59	244	1	0	1	244	1	244	0	499
1	A105_04063T0	Z519_03340T0	99.59	241	1	0	1	241	1	241	1.00E-175	486
9	A105_12834T0	Z519_07437T0	99.59	726	3	0	1	726	1	726	0	1499
10	A105_08028T0	Z519_07865T0	99.6	247	1	0	1	247	1	247	0	504
2	A105_10527T0	Z519_12617T0	99.6	502	2	0	1	502	1	502	0	1035
2	A105_13029T0	Z519_04446T0	99.6	250	1	0	1	250	24	273	0	513
1	A105_03121T0	Z519_09975T0	99.61	768	3	0	1	768	1	768	0	1595
4	A105_06744T0	Z519_06765T0	99.61	519	2	0	1	519	1	519	0	1045
1	A105_12072T0	Z519_12334T0	99.61	258	1	0	1	258	1	258	0	528
14	A105_01121T0	Z519_08394T0	99.62	264	1	0	1	264	115	378	0	541
19	A105_03852T0	Z519_03170T0	99.62	1063	4	0	7	1069	1	1063	0	2185
6	A105_05218T0	Z519_08092T0	99.62	266	1	0	1	266	1	266	0	549
2	A105_07138T0	Z519_06363T0	99.62	522	2	0	1	522	1	522	0	1059
102	A105_09910T0	Z519_10309T0	99.62	261	1	0	1	261	1	261	0	535
1	A105_11209T0	Z519_08874T0	99.62	265	1	0	1	265	1	265	0	540
1	A105_11939T0	Z519_02040T0	99.62	266	1	0	1	266	65	330	0	531
1	A105_12131T0	Z519_09226T0	99.62	525	2	0	1	525	1	525	0	1076
40	A105_01969T0	Z519_01490T0	99.63	820	3	0	1	820	1	820	0	1670
4	A105_04530T0	Z519_02357T0	99.63	540	2	0	1	540	1	540	0	1108

145	A105_04947T0	Z519_02771T0	99.63	267	1	0	1	267	1	267	0	554
10	A105_07775T0	Z519_07589T0	99.63	537	2	0	1	537	1	537	0	1124
2	A105_09694T0	Z519_10513T0	99.63	267	1	0	1	267	1	267	0	538
3	A105_12973T0	Z519_04391T0	99.63	268	1	0	1	268	1	268	0	550
9	A105_00599T0	Z519_00609T0	99.64	553	1	1	1	552	1	553	0	1105
7	A105_01200T0	Z519_08467T0	99.64	274	1	0	1	274	1	274	0	558
3	A105_01399T0	Z519_11868T0	99.64	553	2	0	1	553	1	553	0	1135
7	A105_02973T0	Z519_12056T0	99.64	279	1	0	1	279	1	279	0	571
7	A105_05918T0	Z519_04816T0	99.64	556	2	0	1	556	1	556	0	1134
3	A105_11639T0	Z519_08659T0	99.64	563	2	0	1	563	1	563	0	1138
95	A105_01150T0	Z519_08416T0	99.65	564	2	0	1	564	1	564	0	1170
34	A105_03039T0	Z519_11998T0	99.65	288	1	0	4	291	15	302	0	591
1	A105_03895T0	Z519_03210T0	99.65	285	1	0	1	285	1	285	0	584
1	A105_05425T0	Z519_08300T0	99.65	286	1	0	1	286	1	286	0	570
185	A105_05854T0	Z519_04879T0	99.65	282	1	0	1	282	1	282	0	578
1	A105_05704T0	Z519_11146T0	99.66	293	1	0	1	293	1	293	0	594
7	A105_07628T0	Z519_06191T0	99.66	298	1	0	1	298	1	298	0	608
1	A105_00925T0	Z519_00860T0	99.67	302	1	0	1	302	1	302	0	628
9	A105_07977T0	Z519_07815T0	99.67	301	1	0	1	301	1	301	0	615
51	A105_08856T0	Z519_03797T0	99.67	305	1	0	1	305	1	305	0	617
1	A105_09339T0	Z519_01228T0	99.67	307	1	0	1	307	1	307	0	622
5	A105_00123T0	Z519_00123T0	99.68	1576	5	0	1	1576	1	1576	0	3270
90	A105_00709T0	Z519_00703T0	99.68	317	1	0	1	317	1	317	0	652
2	A105_01093T0	Z519_08372T0	99.68	315	1	0	1	315	1	315	0	655
1	A105_03198T0	Z519_10049T0	99.68	310	1	0	1	310	1	310	0	614
150	A105_04536T0	Z519_02363T0	99.68	624	2	0	1	624	1	624	0	1280
17	A105_09455T0	Z519_01131T0	99.68	317	1	0	1	317	1	317	0	657
75	A105_07833T0	Z519_07648T0	99.69	639	2	0	1	639	1	639	0	1320
1	A105_13198T0	Z519_12484T0	99.69	319	1	0	1	319	1	319	0	649
1	A105_02507T0	Z519_07041T0	99.7	336	1	0	14	349	1	336	0	686
4	A105_04558T0	Z519_02386T0	99.7	328	1	0	1	328	1	328	0	662
79	A105_06487T0	Z519_09177T0	99.7	329	1	0	1	329	1	329	0	677
2	A105_11540T0	Z519_11556T0	99.7	675	2	0	1	675	1	675	0	1387
64	A105_07500T0	Z519_06066T0	99.71	350	1	0	1	350	1	350	0	713
4	A105_08462T0	Z519_05590T0	99.71	344	1	0	1	344	1	344	0	709

1	A105_00393T0	Z519_00395T0	99.72	702	2	0	1	702	1	702	0	1451
1	A105_12499T0	Z519_02833T0	99.72	355	1	0	1	355	1	355	0	725
8	A105_13087T0	Z519_11220T0	99.72	363	1	0	1	363	1	363	0	757
1	A105_00499T0	Z519_00504T0	99.73	365	1	0	1	365	1	365	0	757
3	A105_04300T0	Z519_03580T0	99.73	367	1	0	1	367	1	367	0	740
1	A105_05142T0	Z519_08032T0	99.73	376	1	0	1	376	1	376	0	765
15	A105_08027T0	Z519_07864T0	99.73	367	1	0	1	367	1	367	0	760
5	A105_00961T0	Z519_00895T0	99.74	386	1	0	1	386	1	386	0	798
13	A105_02971T0	Z519_12058T0	99.75	399	1	0	1	399	1	399	0	821
73	A105_04532T0	Z519_02359T0	99.75	397	1	0	1	397	1	397	0	822
1	A105_09488T0	Z519_01095T0	99.76	410	1	0	1	410	1	410	0	858
3	A105_08902T0	Z519_03751T0	99.77	426	1	0	1	426	1	426	0	876
4	A105_12366T0	Z519_12451T0	99.77	426	1	0	1	426	1	426	0	886
4	A105_02268T0	Z519_11709T0	99.78	451	1	0	1	451	1	451	0	934
2	A105_04435T0	Z519_02267T0	99.78	449	1	0	1	449	5	453	0	865
3	A105_04563T0	Z519_02390T0	99.78	445	1	0	1	445	1	445	0	922
4	A105_07167T0	Z519_06334T0	99.78	450	1	0	1	450	1	450	0	924
1	A105_10826T0	Z519_12242T0	99.79	477	1	0	1	477	1	477	0	968
5	A105_01824T0	Z519_01640T0	99.8	506	1	0	1	506	1	506	0	1053
1	A105_02815T0	Z519_07345T0	99.8	491	1	0	1	491	4	494	0	1002
4	A105_07567T0	Z519_06131T0	99.8	508	1	0	1	508	1	508	0	1042
2	A105_12098T0	Z519_12359T0	99.8	490	1	0	1	490	36	525	0	1003
1	A105_07573T0	Z519_06137T0	99.81	1073	2	0	1	1073	1	1073	0	2228
7	A105_00240T0	Z519_00239T0	99.82	562	1	0	1	562	1	562	0	1166
1	A105_04256T0	Z519_03534T0	99.84	625	1	0	1	625	1	625	0	1272
4	A105_10218T0	Z519_10884T0	99.92	1258	1	0	1	1258	1	1258	0	2632
1	A105_00022T0	Z519_00021T0	100	150	0	0	1	150	1	150	8.00E-105	299
1	A105_00141T0	Z519_00142T0	100	258	0	0	1	258	1	258	0	525
2	A105_00385T0	Z519_00387T0	100	439	0	0	1	439	1	439	0	900
27	A105_00386T0	Z519_00388T0	100	394	0	0	1	394	1	394	0	792
2	A105_00406T0	Z519_00407T0	100	55	0	0	1	55	262	316	3.00E-30	113
1	A105_00447T0	Z519_00454T0	100	262	0	0	1	262	1	262	0	525
3	A105_00495T0	Z519_00500T0	100	90	0	0	1	90	1	90	8.00E-64	191
1	A105_00545T0	Z519_00555T0	100	116	0	0	1	116	1	116	5.00E-81	237
4	A105_00674T0	Z519_00669T0	100	451	0	0	1	451	1	451	0	946

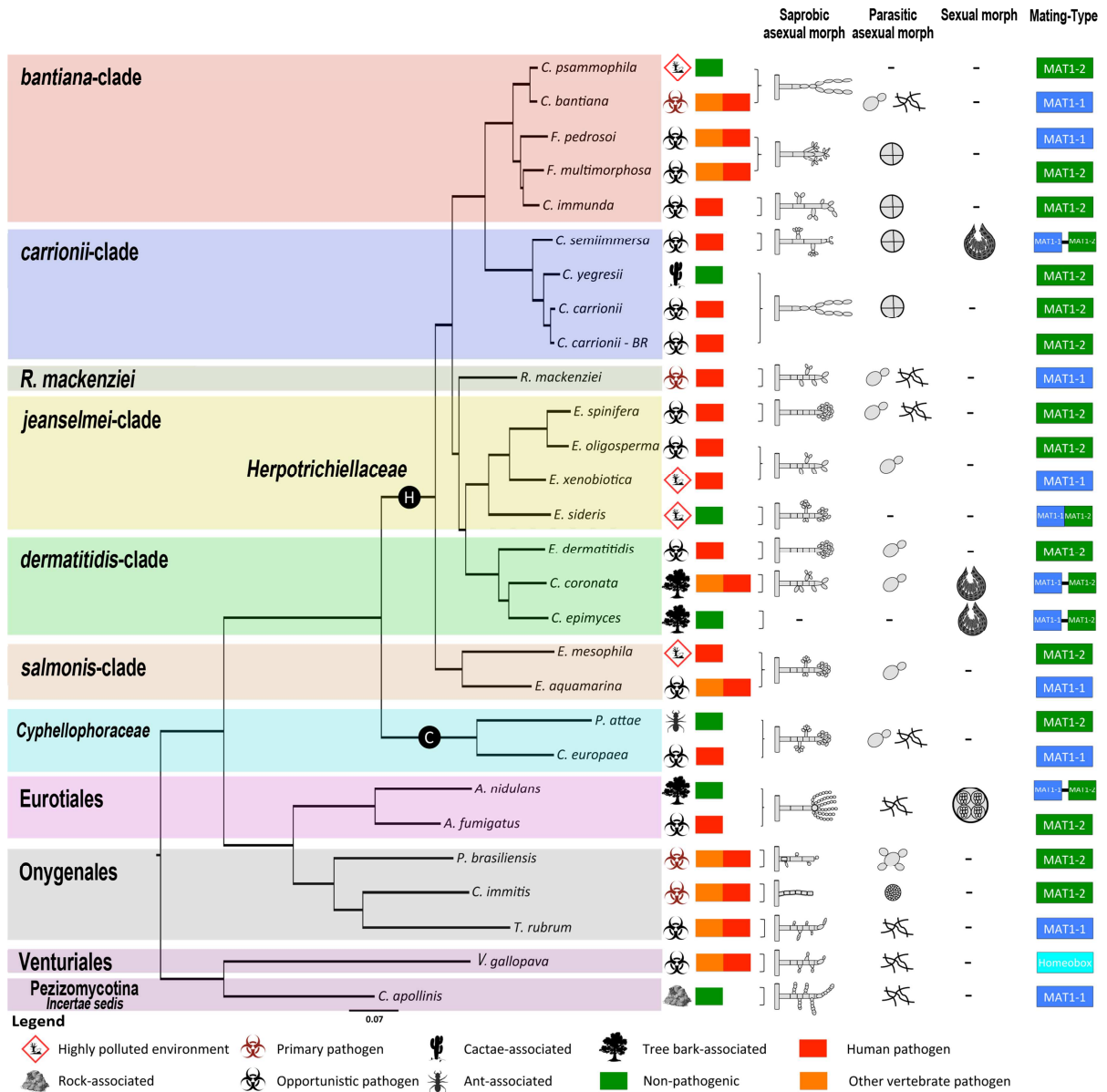
5	A105_00753T0	Z519_00746T0	100	284	0	0	1	284	1	284	0	593
2	A105_01184T0	Z519_08452T0	100	140	0	0	1	140	1	140	4.00E-97	278
1	A105_01299T0	Z519_08564T0	100	72	0	0	1	72	1	72	1.00E-40	137
21	A105_01369T0	Z519_11900T0	100	167	0	0	1	167	1	167	5.00E-121	341
1	A105_01408T0	Z519_11859T0	100	124	0	0	1	124	1	124	1.00E-89	258
1	A105_01410T0	Z519_11857T0	100	144	0	0	1	144	1	144	7.00E-105	298
1	A105_01812T0	Z519_01652T0	100	402	0	0	1	402	1	402	0	823
1	A105_01830T0	Z519_01633T0	100	245	0	0	1	245	1	245	0	504
1	A105_01907T0	Z519_01555T0	100	80	0	0	1	80	1	80	3.00E-52	159
10	A105_02014T0	Z519_01443T0	100	330	0	0	1	330	1	330	0	690
2	A105_02079T0	Z519_01399T0	100	213	0	0	1	213	1	213	1.00E-149	418
3	A105_02186T0	Z519_01292T0	100	104	0	0	1	104	1	104	3.00E-67	200
3	A105_02187T0	Z519_01291T0	100	137	0	0	1	137	1	137	4.00E-95	273
10	A105_02220T0	Z519_11755T0	100	230	0	0	1	230	1	230	9.00E-163	452
1	A105_02277T0	Z519_11699T0	100	53	0	0	1	53	1	53	6.00E-31	105
1	A105_02282T0	Z519_11694T0	100	143	0	0	1	143	57	199	1.00E-97	282
1	A105_02292T0	Z519_11684T0	100	152	0	0	1	152	1	152	6.00E-109	309
1	A105_02303T0	Z519_11673T0	100	97	0	0	1	97	1	97	7.00E-67	198
2	A105_02379T0	Z519_11592T0	100	211	0	0	1	211	1	211	6.00E-154	428
1	A105_02400T0	Z519_06928T0	100	511	0	0	1	511	1	511	0	1058
2	A105_02527T0	Z519_07057T0	100	154	0	0	1	154	1	154	4.00E-110	313
1	A105_02547T0	Z519_07078T0	100	94	0	0	1	94	1	94	3.00E-65	194
7	A105_02566T0	Z519_07096T0	100	190	0	0	1	190	1	190	2.00E-139	390
10	A105_02567T0	Z519_07097T0	100	325	0	0	1	325	1	325	0	673
1	A105_02637T0	Z519_07166T0	100	66	0	0	1	66	1	66	9.00E-42	132
1	A105_02642T0	Z519_07174T0	100	247	0	0	6	252	9	255	0	503
23	A105_02680T0	Z519_07212T0	100	440	0	0	1	440	1	440	0	900
21	A105_02688T0	Z519_07221T0	100	148	0	0	1	148	1	148	3.00E-108	307
23	A105_02824T0	Z519_07355T0	100	242	0	0	1	242	1	242	0	508
1	A105_02833T0	Z519_07364T0	100	204	0	0	1	204	1	204	4.00E-147	410
1	A105_02991T0	Z519_12038T0	100	107	0	0	1	107	1	107	8.00E-74	216
2	A105_02992T0	Z519_12037T0	100	133	0	0	1	133	1	133	4.00E-91	263
1	A105_02993T0	Z519_12036T0	100	142	0	0	1	142	1	142	1.00E-97	280
12	A105_03013T0	Z519_12016T0	100	316	0	0	1	316	1	316	0	644
1	A105_03074T0	Z519_11964T0	100	87	0	0	1	87	1	87	9.00E-60	180

1	A105_03203T0	Z519_10054T0	100	148	0	0	1	148	1	148	3.00E-105	300
72	A105_03208T0	Z519_10058T0	100	358	0	0	1	358	1	358	0	746
1	A105_03255T0	Z519_10104T0	100	117	0	0	1	117	1	117	3.00E-81	236
1	A105_03275T0	Z519_10123T0	100	55	0	0	1	55	1	55	1.00E-32	108
1	A105_03284T0	Z519_10132T0	100	189	0	0	4	192	2	190	1.00E-136	382
17	A105_03354T0	Z519_10178T0	100	138	0	0	1	138	985	1122	3.00E-93	293
81	A105_03371T0	Z519_10192T0	100	413	0	0	1	413	1	413	0	866
1	A105_03418T0	Z519_10240T0	100	243	0	0	1	243	1	243	0	503
62	A105_03433T0	Z519_10255T0	100	321	0	0	1	321	1	321	0	668
6	A105_03438T0	Z519_10260T0	100	155	0	0	1	155	1	155	2.00E-111	316
1	A105_03440T0	Z519_10262T0	100	120	0	0	1	120	1	120	7.00E-86	248
26	A105_03528T0	Z519_09651T0	100	423	0	0	1	423	1	423	0	852
1	A105_03595T0	Z519_09722T0	100	79	0	0	1	79	1	79	1.00E-50	155
1	A105_03612T0	Z519_09740T0	100	86	0	0	1	86	1	86	7.00E-59	177
1	A105_03619T0	Z519_09746T0	100	54	0	0	24	77	1	54	3.00E-32	117
8	A105_03620T0	Z519_09747T0	100	383	0	0	1	383	1	383	0	788
8	A105_03718T0	Z519_03037T0	100	252	0	0	1	252	1	252	0	525
2	A105_03834T0	Z519_03152T0	100	157	0	0	1	157	1	157	8.00E-112	317
1	A105_03838T0	Z519_03156T0	100	109	0	0	1	109	1	109	1.00E-74	219
1	A105_03839T0	Z519_03157T0	100	228	0	0	1	228	1	228	6.00E-170	470
1	A105_03860T0	Z519_03178T0	100	149	0	0	1	149	1	149	3.00E-102	292
82	A105_03906T0	Z519_03220T0	100	370	0	0	1	370	1	370	0	769
5	A105_04064T0	Z519_03341T0	100	342	0	0	1	342	31	372	0	705
1	A105_04146T0	Z519_03426T0	100	233	0	0	1	233	1	233	9.00E-173	478
1	A105_04177T0	Z519_03455T0	100	85	0	0	1	85	38	122	1.00E-57	175
23	A105_04205T0	Z519_03484T0	100	183	0	0	1	183	1	183	2.00E-134	380
2	A105_04220T0	Z519_03500T0	100	390	0	0	1	390	1	390	0	799
10	A105_04279T0	Z519_03557T0	100	179	0	0	1	179	1	179	3.00E-129	363
2	A105_04302T0	Z519_03582T0	100	111	0	0	1	111	1	111	3.00E-79	231
2	A105_04382T0	Z519_02209T0	100	149	0	0	1	149	23	171	4.00E-105	300
1	A105_04548T0	Z519_02375T0	100	196	0	0	1	196	1	196	4.00E-146	407
1	A105_04675T0	Z519_02504T0	100	120	0	0	1	120	1	120	1.00E-85	248
1	A105_04728T0	Z519_02558T0	100	147	0	0	1	147	1	147	2.00E-102	293
2	A105_04739T0	Z519_02568T0	100	210	0	0	1	210	1	210	4.00E-154	429
27	A105_04765T0	Z519_02592T0	100	441	0	0	1	441	1	441	0	906

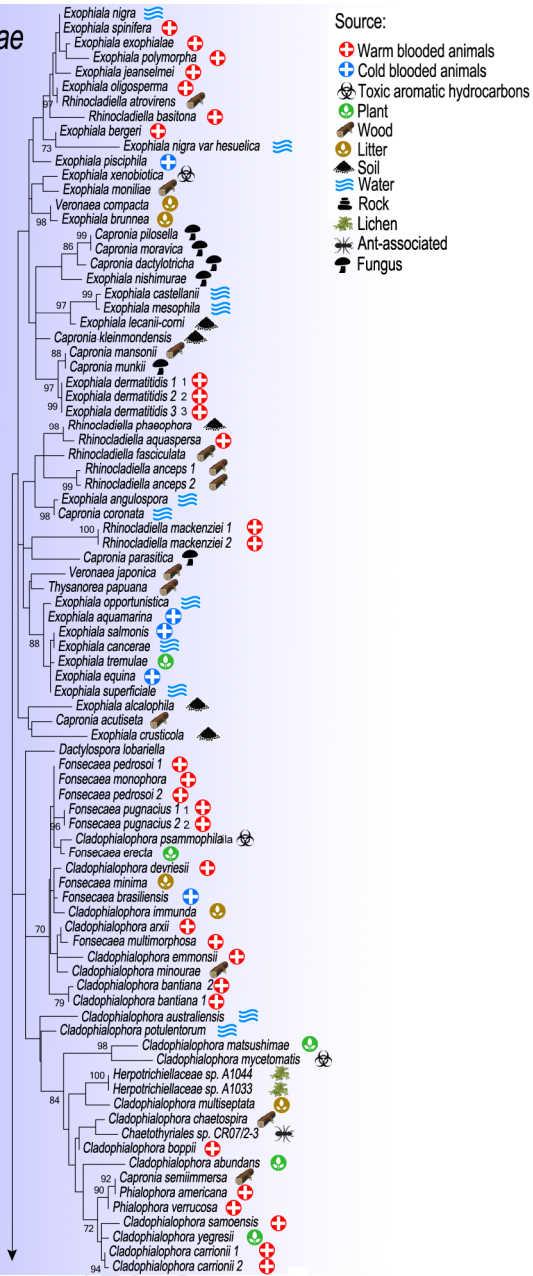
1	A105_04799T0	Z519_02627T0	100	156	0	0	1	156	1	156	1.00E-114	324
21	A105_04813T0	Z519_02638T0	100	150	0	0	1	150	1	150	1.00E-108	308
2	A105_04815T0	Z519_02640T0	100	158	0	0	1	158	1	158	9.00E-110	312
3	A105_05108T0	Z519_07998T0	100	140	0	0	1	140	1	140	3.00E-103	294
1	A105_05190T0	Z519_08079T0	100	202	0	0	1	202	1	202	2.00E-146	409
2	A105_05212T0	Z519_08086T0	100	394	0	0	1	394	1	394	0	809
31	A105_05227T0	Z519_08101T0	100	374	0	0	1	374	1	374	0	782
1	A105_05281T0	Z519_08154T0	100	104	0	0	1	104	1	104	2.00E-72	213
1	A105_05432T0	Z519_08309T0	100	127	0	0	1	127	1	127	2.00E-89	258
1	A105_05491T0	Z519_03609T0	100	303	0	0	1	303	1	303	0	608
4	A105_05570T0	Z519_03683T0	100	342	0	0	1	342	1	342	0	714
1	A105_05893T0	Z519_04841T0	100	293	0	0	1	293	1	293	0	608
1	A105_05904T0	Z519_04830T0	100	96	0	0	1	96	1	96	8.00E-70	206
1	A105_05905T0	Z519_04829T0	100	159	0	0	1	159	1	159	3.00E-115	326
1	A105_05921T0	Z519_04813T0	100	125	0	0	1	125	1	125	5.00E-91	262
1	A105_05934T0	Z519_04800T0	100	72	0	0	1	72	1	72	3.00E-48	149
2	A105_05952T0	Z519_04783T0	100	162	0	0	1	162	1	162	5.00E-118	333
5	A105_05983T0	Z519_04753T0	100	467	0	0	1	467	1	467	0	964
1	A105_06146T0	Z519_04592T0	100	82	0	0	1	82	1	82	9.00E-52	159
4	A105_06148T0	Z519_04590T0	100	193	0	0	1	193	1	193	6.00E-143	399
1	A105_06400T0	Z519_10641T0	100	93	0	0	1	93	1	93	1.00E-64	192
4	A105_06423T0	Z519_10618T0	100	141	0	0	1	141	1	141	3.00E-102	291
1	A105_06597T0	Z519_09067T0	100	109	0	0	1	109	1	109	9.00E-75	220
45	A105_06702T0	Z519_08967T0	100	367	0	0	1	367	1	367	0	752
4	A105_06709T0	Z519_08960T0	100	127	0	0	1	127	1	127	6.00E-90	259
4	A105_07421T0	Z519_05993T0	100	58	0	0	1	58	1	58	5.00E-34	112
1	A105_07447T0	Z519_06016T0	100	64	0	0	1	64	1	64	1.00E-41	134
27	A105_07467T0	Z519_06034T0	100	400	0	0	1	400	1	400	0	828
2	A105_07584T0	Z519_06147T0	100	67	0	0	15	81	1	67	4.00E-45	145
1	A105_07731T0	Z519_07546T0	100	152	0	0	1	152	1	152	3.00E-107	305
1	A105_07882T0	Z519_07713T0	100	140	0	0	2	141	62	201	5.00E-99	285
1	A105_07923T0	Z519_07761T0	100	58	0	0	1	58	1	58	9.00E-38	122
7	A105_08023T0	Z519_07860T0	100	175	0	0	1	175	1	175	6.00E-126	355
1	A105_08173T0	Z519_09397T0	100	206	0	0	1	206	1	206	1.00E-147	412
1	A105_08241T0	Z519_09461T0	100	99	0	0	1	99	1	99	6.00E-64	191

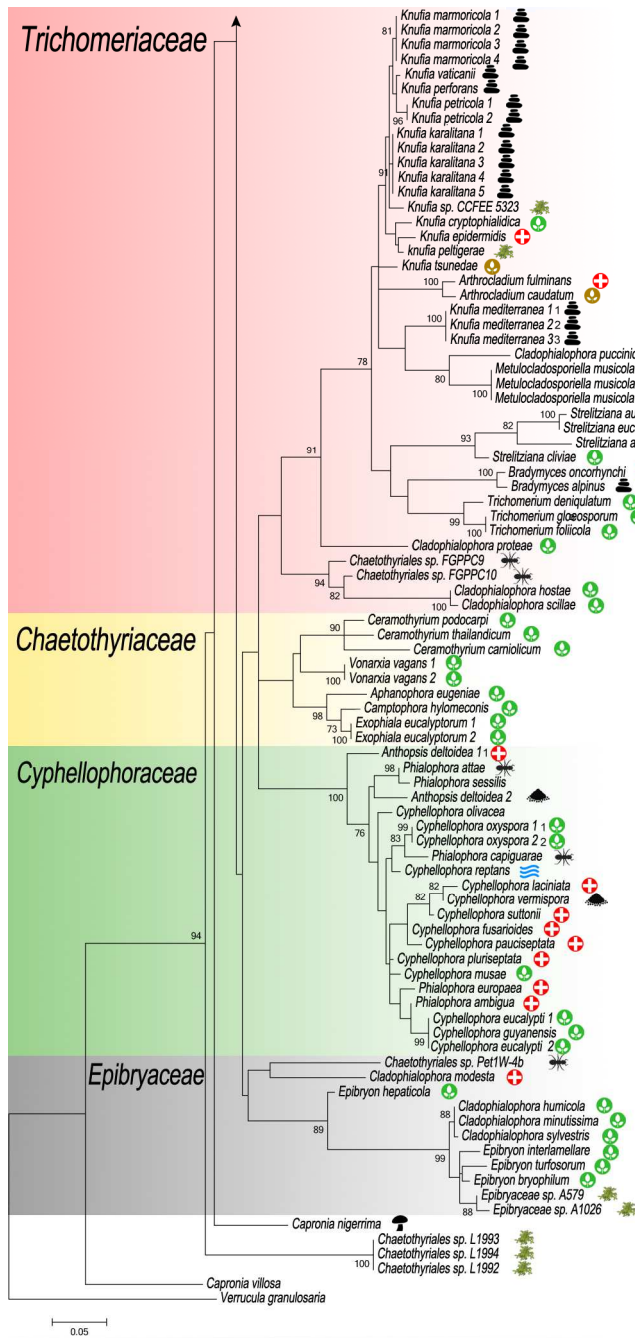
1	A105_08242T0	Z519_09462T0	100	131	0	0	1	131	1	131	6.00E-93	267
1	A105_08387T0	Z519_05655T0	100	100	0	0	1	100	1	100	3.00E-66	197
1	A105_08473T0	Z519_05579T0	100	116	0	0	1	116	1	116	4.00E-79	231
3	A105_08500T0	Z519_05552T0	100	147	0	0	1	147	1	147	1.00E-97	280
2	A105_08501T0	Z519_05551T0	100	127	0	0	1	127	1	127	6.00E-89	256
23	A105_08650T0	Z519_04006T0	100	194	0	0	1	194	1	194	3.00E-142	397
1	A105_08690T0	Z519_03969T0	100	218	0	0	1	218	1	218	1.00E-158	441
10	A105_08692T0	Z519_03967T0	100	184	0	0	1	184	1	184	3.00E-135	379
1	A105_08917T0	Z519_03736T0	100	238	0	0	1	238	1	238	0	499
3	A105_08974T0	Z519_05077T0	100	166	0	0	1	166	1	166	4.00E-121	342
3	A105_09050T0	Z519_05162T0	100	191	0	0	1	191	1	191	1.00E-138	388
1	A105_09131T0	Z519_05242T0	100	133	0	0	22	154	4	136	3.00E-94	271
20	A105_09274T0	Z519_05381T0	100	152	0	0	1	152	1	152	1.00E-111	317
2	A105_09315T0	Z519_01251T0	100	168	0	0	1	168	1	168	4.00E-124	349
1	A105_09340T0	Z519_01227T0	100	182	0	0	39	220	19	200	7.00E-131	370
64	A105_09442T0	Z519_01144T0	100	336	0	0	1	336	1	336	0	695
1	A105_09444T0	Z519_01142T0	100	83	0	0	1	83	1	83	1.00E-53	163
1	A105_09679T0	Z519_10528T0	100	82	0	0	1	82	47	128	1.00E-56	175
4	A105_09849T0	Z519_10368T0	100	479	0	0	1	479	1	479	0	989
1	A105_09954T0	Z519_04193T0	100	216	0	0	1	216	1	216	4.00E-159	442
1	A105_09960T0	Z519_04187T0	100	65	0	0	1	65	1	65	4.00E-41	138
27	A105_10140T0	Z519_04291T0	100	390	0	0	1	390	1	390	0	790
1	A105_10199T0	Z519_10865T0	100	93	0	0	1	93	1	93	2.00E-61	184
1	A105_10300T0	Z519_10965T0	100	210	0	0	1	210	1	210	7.00E-159	441
1	A105_10421T0	Z519_11297T0	100	242	0	0	1	242	1	242	0	503
27	A105_10735T0	Z519_09923T0	100	464	0	0	1	464	1	464	0	942
21	A105_10736T0	Z519_09924T0	100	245	0	0	1	245	1	245	0	503
1	A105_10791T0	Z519_12275T0	100	64	0	0	1	64	202	265	6.00E-42	138
1	A105_11004T0	Z519_06800T0	100	138	0	0	1	138	1	138	1.00E-94	272
2	A105_11360T0	Z519_02098T0	100	109	0	0	1	109	1	109	6.00E-76	225
2	A105_11429T0	Z519_08709T0	100	117	0	0	1	117	1	117	2.00E-80	234
22	A105_11441T0	Z519_08720T0	100	219	0	0	1	219	1	219	1.00E-161	448
3	A105_11674T0	Z519_08622T0	100	151	0	0	1	151	1	151	4.00E-110	312
12	A105_11745T0	Z519_02935T0	100	125	0	0	5	129	36	160	1.00E-86	252
3	A105_11755T0	Z519_02925T0	100	104	0	0	1	104	1	104	1.00E-67	201

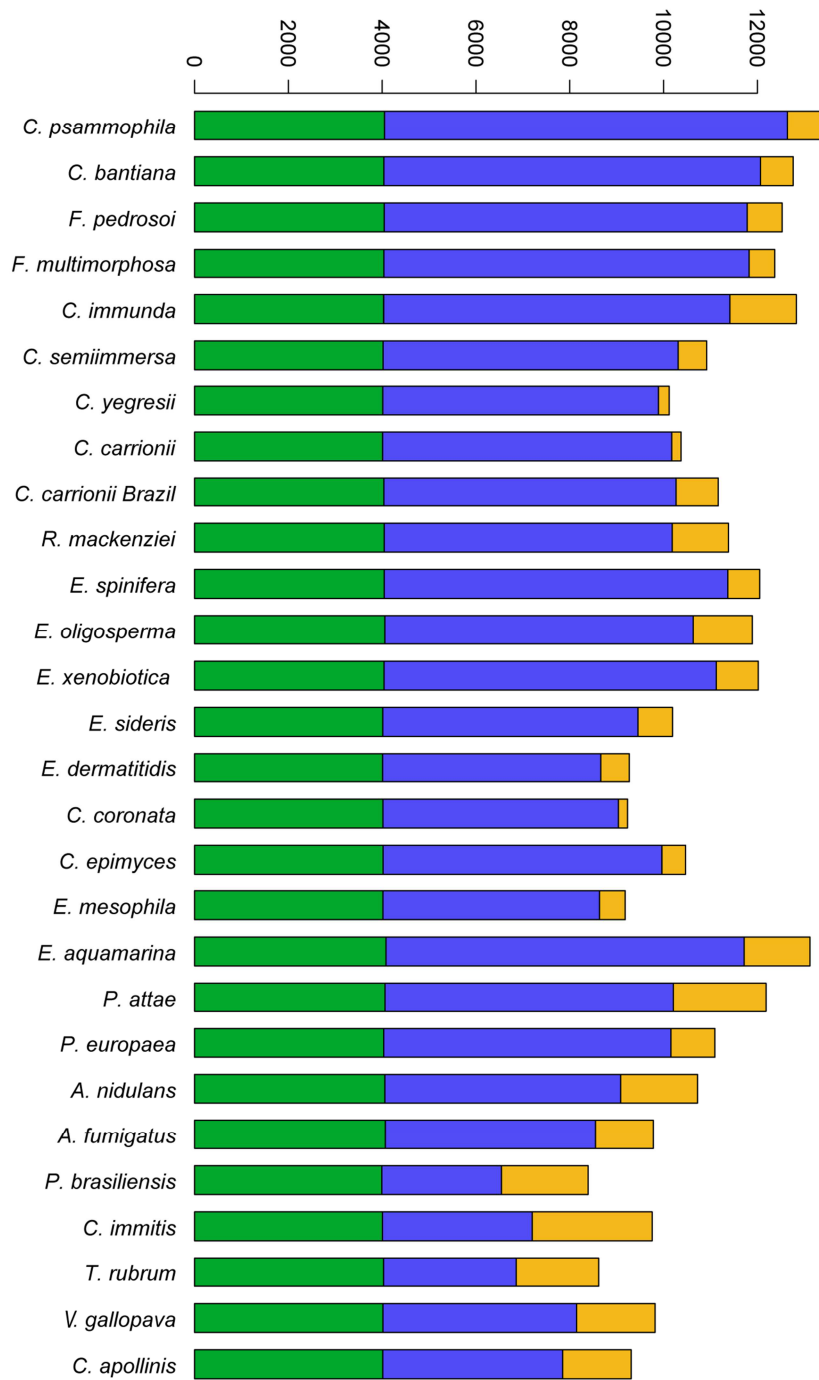
5	A105_11777T0	Z519_02904T0	100	144	0	0	1	144	1	144	2.00E-104	297
1	A105_11804T0	Z519_02880T0	100	159	0	0	1	159	1	159	3.00E-113	321
2	A105_11805T0	Z519_02879T0	100	193	0	0	1	193	1	193	2.00E-137	385
2	A105_11864T0	Z519_01968T0	100	164	0	0	1	164	1	164	6.00E-120	338
1	A105_11898T0	Z519_02001T0	100	78	0	0	1	78	1	78	4.00E-51	157
12	A105_11993T0	Z519_05738T0	100	170	0	0	1	170	1	170	6.00E-124	351
1	A105_12132T0	Z519_09227T0	100	89	0	0	1	89	1	89	7.00E-62	185
1	A105_12155T0	Z519_09268T0	100	118	0	0	1	118	54	171	5.00E-81	238
6	A105_12418T0	Z519_06259T0	100	354	0	0	1	354	1	354	0	739
2	A105_12444T0	Z519_12667T0	100	218	0	0	1	218	1	218	1.00E-159	443
1	A105_13012T0	Z519_04427T0	100	79	0	0	1	79	30	108	3.00E-52	160
1	A105_13076T0	Z519_11211T0	100	136	0	0	1	136	1	136	2.00E-96	276
2	A105_13156T0	Z519_04367T0	100	201	0	0	1	201	1	201	6.00E-144	402
2	A105_13174T0	Z519_04350T0	100	92	0	0	1	92	1	92	3.00E-60	184
1	A105_13253T0	Z519_12163T0	100	314	0	0	1	314	1	314	0	644
1	A105_13342T0	Z519_09327T0	100	132	0	0	1	132	1	132	7.00E-93	267

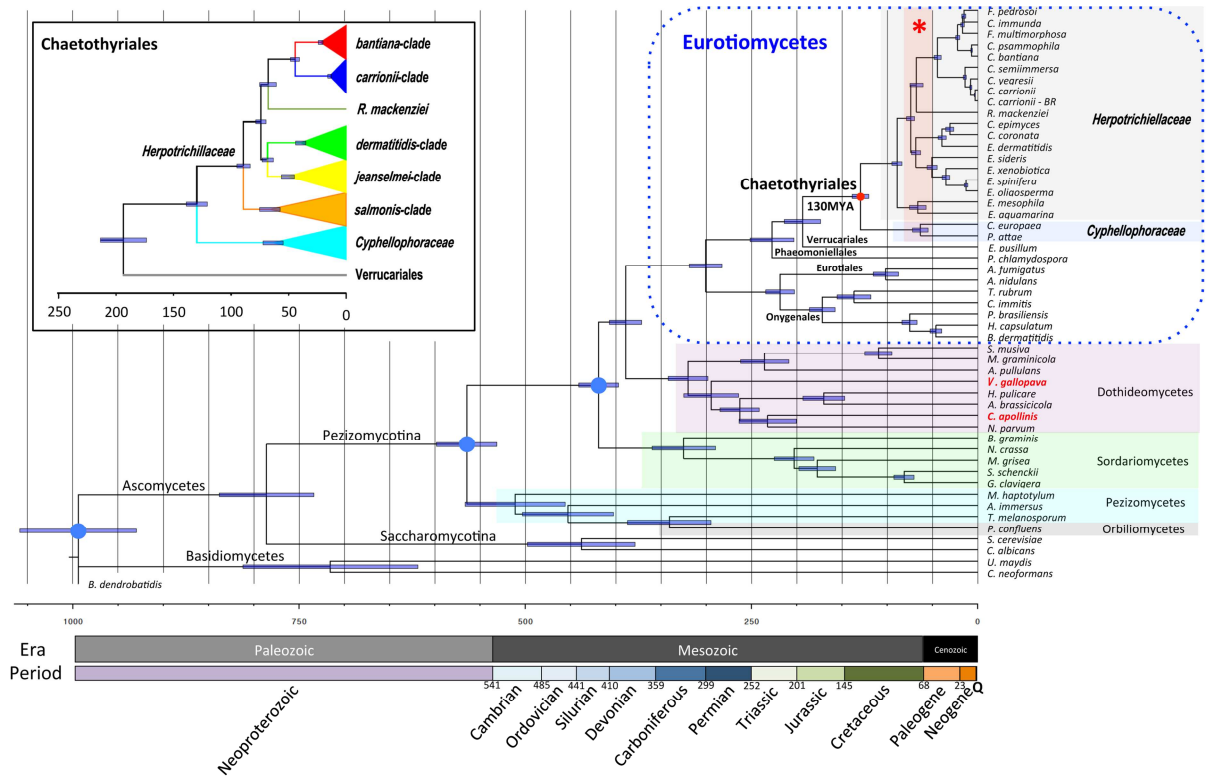


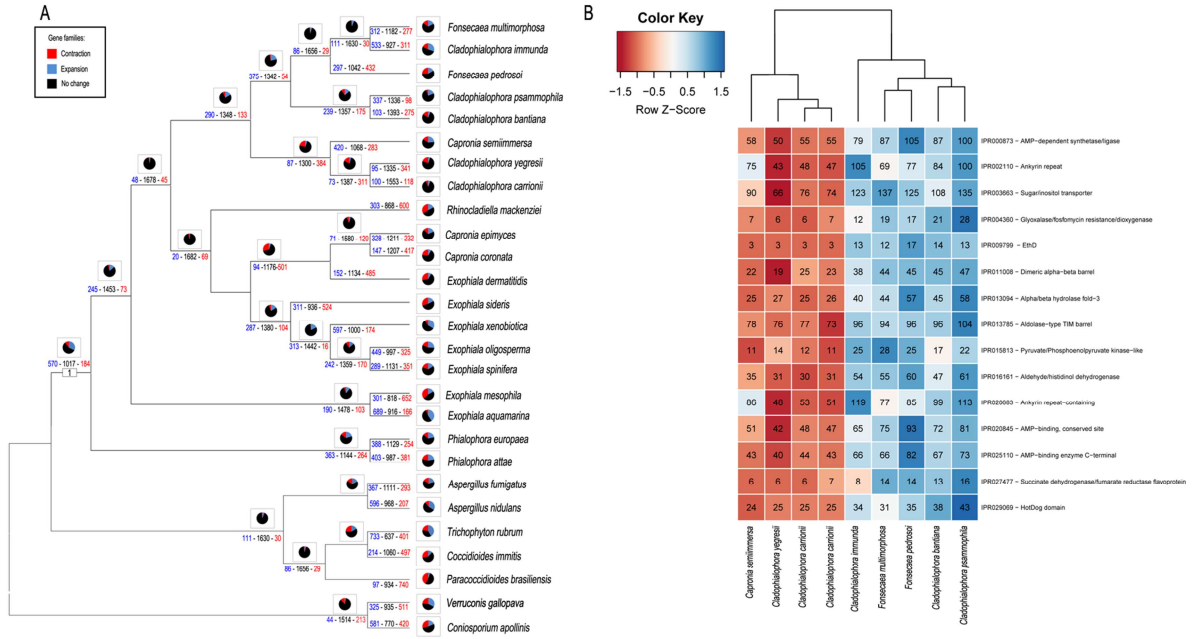
Herpotrichiellaceae

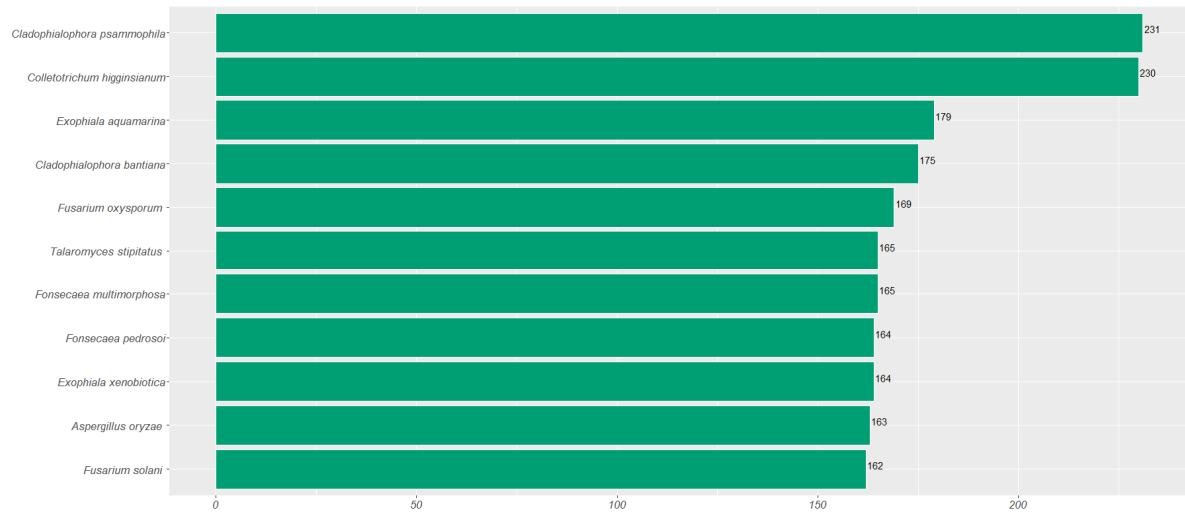


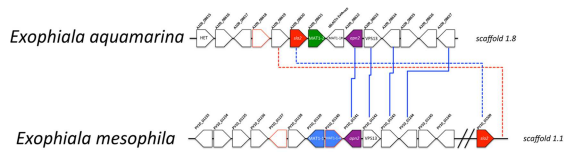
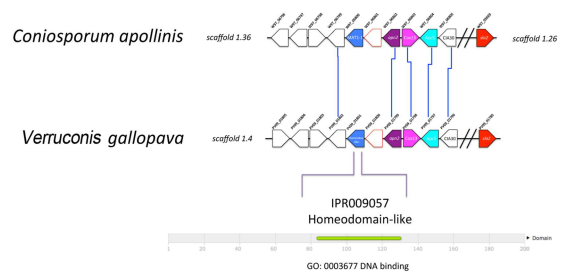
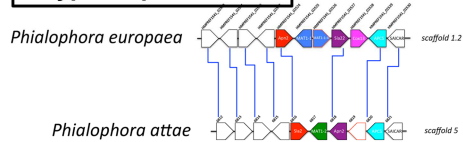






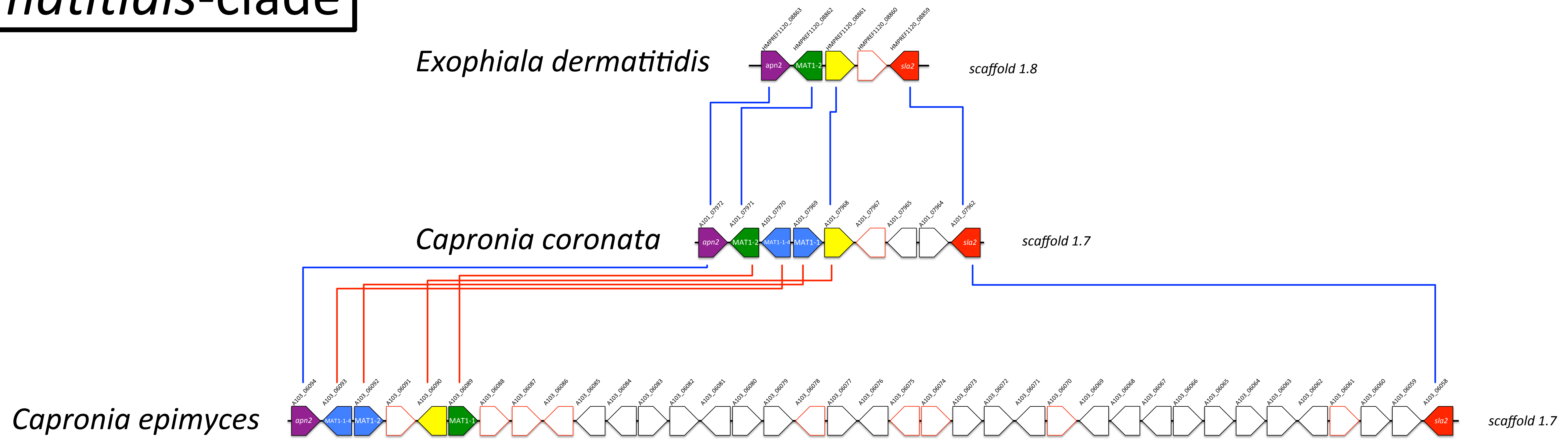




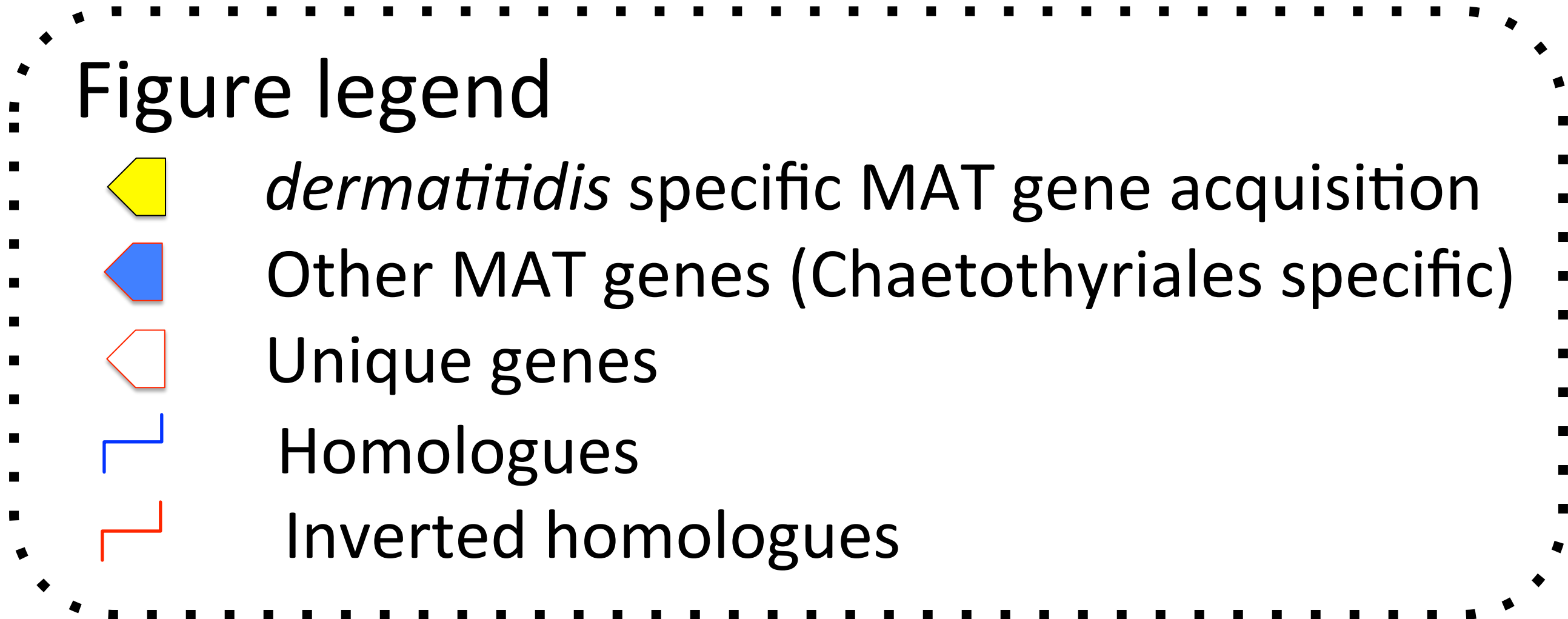
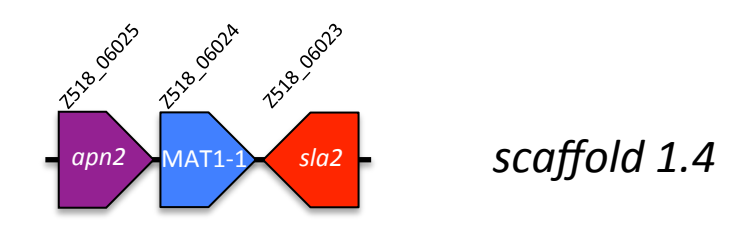
salmonis-clade**Ancestral lineages****Cyphellophoraceae****Figure legend**

- Unique genes
- Other *MAT-1* genes (Chaetothiales specific)
- Homologies
- Inverted homologues

dermatitidis-clade



Rhinocladiella mackenziei



jeanselmei-clade

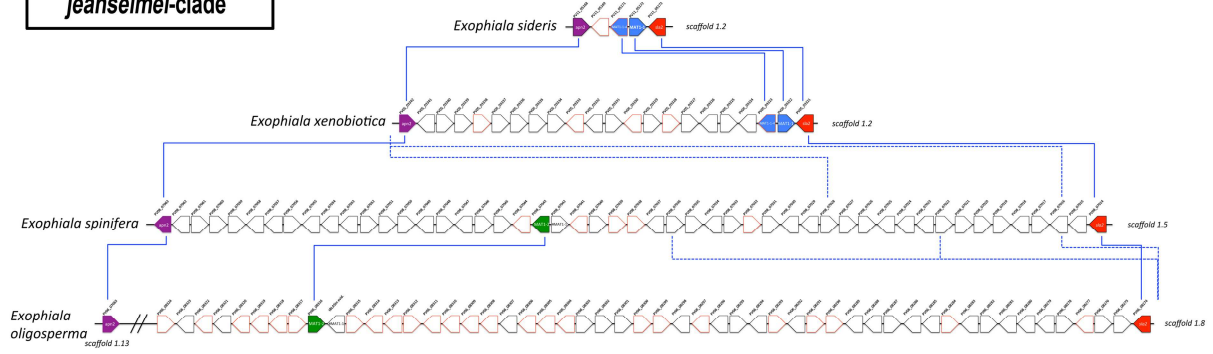


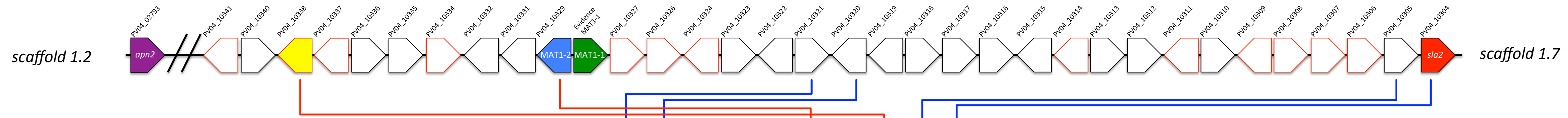
Figure legend

- ◆ Other MAT-1 genes (Chaetothyriales specific)
- ◆ Unique genes
- Homologues
- - - Homologues outside the SLA/APN2 range

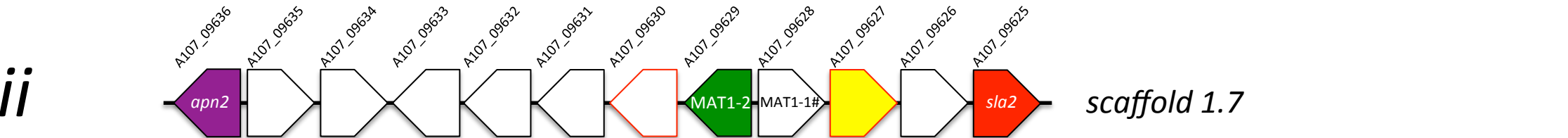
ACCEPTED MANUSCRIPT

carrionii-clade

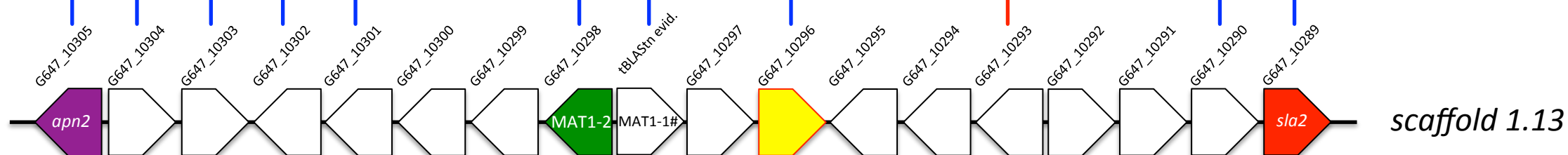
Capronia semiimmersa



Cladophialophora yegresii



Cladophialophora carrionii



Cladophialophora carrionii - BR

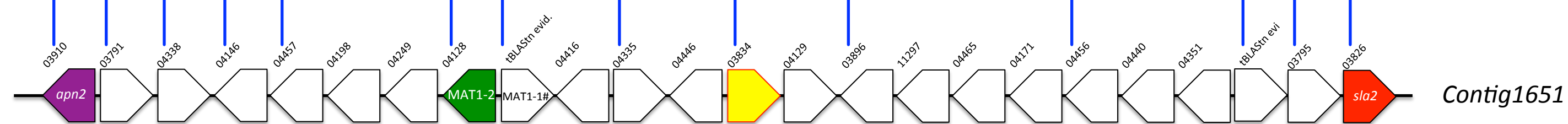


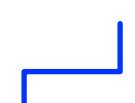



Figure legend

-  carrionii-specific *MAT* gene acquisition
-  Unique genes
-  Homologues
-  Inverted homologues

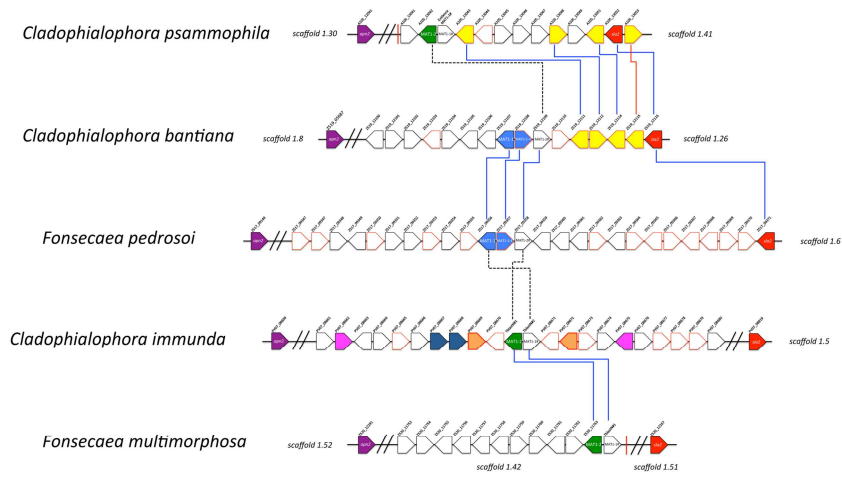
bantiana-clade

Figure legend

Homologues

Inverted homologues

bantiana-specific MAT gene acquisition



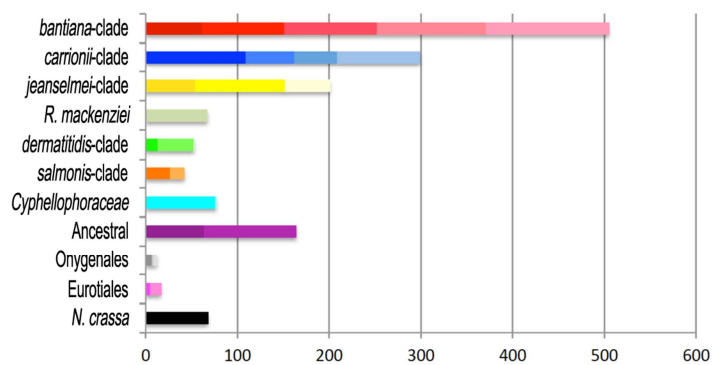
Other MAT-1 genes (Chaetothyriales specific)

Unique genes

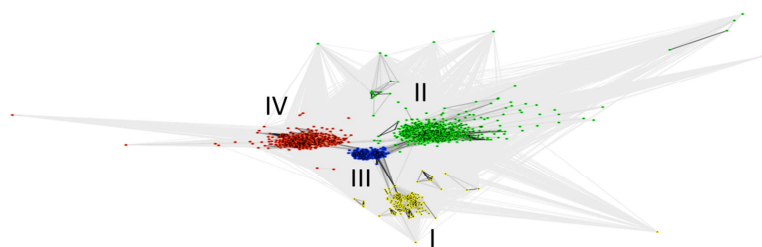
immunda-specific gene acquisition by genome duplication?

ACCEPTED MANUSCRIPT

A



B



ACCEPTED