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A liver-specific long non-coding RNA with a role in cell viability is elevated in human non-alcoholic steatohepatitis

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List of abbreviations

| | |
|----------------|-----------------------------------|
| BMI | body mass index |
| FDR | false discovery rate |
| lncRNA | long non-coding RNA |
| NAFLD | non-alcoholic fatty liver disease |
| NAS | NAFLD activity score |
| NASH | non-alcoholic steatohepatitis |
| qRT-PCR | quantitative RT-PCR |
| ROS | reactive oxygen species |
| shRNAs | short hairpin RNAs |

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Conflict of interest

The authors report no conflicts of interest in this work.

Abstract

Hepatocyte apoptosis in non-alcoholic steatohepatitis (NASH) can lead to fibrosis and cirrhosis, which permanently damage the liver. Understanding the regulation of hepatocyte apoptosis is therefore important to identify therapeutic targets that may prevent the progression of NASH to fibrosis. Recently, increasing evidence has shown that lncRNAs are involved in various biological processes and that their dysregulation underlies a number of complex human diseases. By performing gene expression profiling of 4,383 lncRNAs in 82 liver samples from individuals with NASH (n=48), simple steatosis but no NASH (n=11) and healthy controls (n=23), we discovered a liver-specific lncRNA (*RP11-484N16.1*) on chromosome 18 that showed significantly elevated expression in the liver tissue of NASH patients. This lncRNA, which we named lnc18q22.2 based on its chromosomal location, correlated with NASH grade ($r=0.51$, $P=8.11 \times 10^{-7}$), lobular inflammation ($r=0.49$, $P=2.35 \times 10^{-6}$) and non-alcoholic fatty liver disease activity score ($r=0.48$, $P=4.69 \times 10^{-6}$). The association of lnc18q22.2 to liver steatosis and steatohepatitis was replicated in 44 independent liver biopsies ($r=0.47$, $P=0.0013$). We provided a genetic structure of lnc18q22.2 showing an extended exon 2 in liver. Knockdown of lnc18q22.2 in four different hepatocyte cell lines resulted in severe phenotypes ranging from reduced cell growth to lethality. This observation was consistent with pathway analyses of genes co-expressed with lnc18q22.2 in human liver or affected by lnc18q22.2 knockdown. **Conclusion:** we identified a lncRNA that can play an important regulatory role in liver function and provide new insights into the regulation of hepatocyte viability in NASH.

Non-alcoholic fatty liver disease (NAFLD) is a spectrum of conditions ranging from hepatocellular steatosis through steatohepatitis to fibrosis and irreversible cirrhosis. It is currently the most prevalent chronic liver disease and highly associated with metabolic syndrome and obesity.⁽¹⁾ Non-alcoholic steatohepatitis (NASH) is the progressive form of NAFLD. The major features of NASH include not only a fatty liver and inflammation but also hepatocyte apoptosis.⁽²⁾ NASH can be severe and can lead to fibrosis and cirrhosis, which permanently damage and scar the liver, disrupting hepatic function.⁽³⁾ Preventing NASH from progressing to fibrosis and cirrhosis is therefore crucial. However, treatment options remain limited and are restricted to lifestyle improvement and body weight control.⁽⁴⁾ Understanding the regulation of hepatocyte apoptosis will contribute to the identification of molecular targets that prevent NASH progression.

Transcriptome analysis has been used to identify molecular mechanisms involved in NAFLD and NASH.^(5,6) Previously, we profiled genome-wide transcripts in multiple tissue types from a Dutch obesity cohort using microarray to identify novel protein-coding genes in NASH patients, including tissue-specific adipokines⁽⁷⁾ and the cholesteryl ester transfer protein.⁽⁸⁾ In recent years, with the advance of RNA-seq technology, a large proportion of the human genome has been found to produce functional RNA molecules rather than encoding proteins, and these functional RNAs are known as non-coding RNAs. Non-coding RNAs are classified into different groups that include microRNAs, small interfering RNAs, piwi-interacting RNAs and the largest group, long non-coding RNAs (lncRNAs). A lncRNA is defined as a non-coding transcript longer than 200 nucleotides with an exon-intron structure.⁽⁹⁾ To date, more than 15,000 lncRNAs have been annotated in the human genome.

Increasing evidence has shown that lncRNAs play important roles in numerous physiological processes by regulating gene expression and modulating protein function through a variety of

mechanisms.⁽¹⁰⁾ Dysregulation of lncRNAs has also been shown to contribute to the progression of many diseases, including liver disease.⁽¹¹⁾ Individual lncRNAs associated to metabolic disorders and liver diseases have been identified in mice and humans. For instance, *lncLSTR*, a liver-enriched lncRNA, was identified as a putative regulator of plasma triglyceride levels in mice, but no human orthologue was found.⁽¹²⁾ An antisense lncRNA to apolipoprotein A1 (*APOA1-AS*) has been shown to negatively regulate the expression of *APOA1*, a major component of high-density lipoprotein.⁽¹³⁾ The lncRNAs *Meg3* and *MALAT-1* may be involved in hepatocellular carcinoma by regulating gene expression and alternative splicing, respectively.^(14,15) Although over 1,000 lncRNAs have been reported to be associated with NAFLD, their role in this disease remains largely unknown.⁽¹⁶⁾ Moreover, their potential as non-invasive biomarkers is largely unexplored, as non-coding RNAs can form stable secondary structures that can be detected in circulating exosomes.^(11,17)

In this study, we report the discovery of lnc18q22.2, a liver-specific lncRNA (*RP11-484N16.1*) involved in cell viability with elevated expression in the liver of NASH patients. An overview of this study is presented in Figure 1. The involvement of lncRNAs in NASH was first identified by association analyses between the expression levels of 4,383 lncRNAs and detailed histological analysis of NASH phenotypes in 82 liver samples. The expression of lnc18q22.2 was significantly elevated in NASH patients, a finding that we replicated in an independent dataset. We then assessed lnc18q22.2's structure, abundance and cellular location. Further, we investigated its downstream effect by silencing it in four hepatocyte cell lines (hepatocellular carcinoma derived HepG2, Huh7 and Hep3B cell lines and the non-tumorous cell line immortalized human hepatocytes [IHH]) and two non-hepatocyte cell lines as controls (HEK293T and HeLa). This lnc18q22.2 knockdown resulted in negative regulation of cell viability in hepatocytes. Finally, the underlying processes were

assessed by pathway analysis of co-expressed genes and of genes affected by lnc18q22.2 knockdown using RNA-seq.

Materials and methods

Liver biopsies and NASH phenotypes

Our study cohort consisted of liver biopsies from 82 severely obese Dutch individuals with a body mass index (BMI) between 30 and 73 who underwent elective bariatric surgery in the Department of General Surgery, Maastricht University Medical Center. The collection and processing of liver biopsies are described in details in the online methods. Exclusion criteria for this cohort were individuals with acute or chronic inflammatory disease (e.g. autoimmune disease), with degenerative disease, who reported alcohol consumption of >10 g/day, or who used anti-inflammatory drugs. NASH phenotypes were analyzed by an experienced pathologist who was blinded to the clinical and biochemical parameters. NASH staging and grading was performed according to the Brunt scoring system.⁽¹⁸⁾ Moreover, each individual was scored for seven different histological parameters of liver pathology: steatosis, fibrosis, inflammation (lobular inflammation, large lipogranulomas, portal inflammation), liver cell injury (ballooning) and glycogenated nuclei according to the scoring system described by Kleiner⁽¹⁹⁾ (Supporting Table S1). The NAFLD activity score (NAS) was calculated according to the Kleiner scoring system. Circulating levels of the liver enzymes aspartate-amino transferase and alanine-amino transferase were also measured and used for the analysis. The study was approved by the Medical Ethics Board of the Maastricht University Medical Center, in line with the ethical guidelines of the 1975 Declaration of Helsinki. Informed consent was obtained in writing from each participant.

Microarray data generation and lncRNA probe mapping

RNA was isolated and profiled as described previously.⁽²⁰⁾ The average RNA integrity number for RNA quality was 7.6, with a range of 5.7 – 9.3. Whole-transcriptome expression profiling was performed on 82 liver samples using Illumina Human HT12 Bead Chips (Illumina, San Diego, CA, USA).⁽²⁰⁾ Although not designed for lncRNA quantification, this platform contains probes for transcripts with unknown function and without significant coding potential. In order to identify which probes cover lncRNA genes, two human lncRNA annotation databases were used:

GENCODE version 19 (July 2013; 13,870 annotated lncRNAs;

<http://www.gencodegenes.org/stats/archive.html#a19>) and the Human Body Map catalog (>8,000 annotated long intergenic non-coding RNAs, a subclass of lncRNAs;

http://www.broadinstitute.org/genome_bio/human_lincrnas/?q=home). lncRNAs were quantified using probes that mapped to one or both database annotations and did not overlap with protein-coding genes or other lncRNAs. The final list of probes used to determine lncRNA expression contained 4,468 probes covering 4,383 lncRNAs. Data were log₂ transformed, quantile normalized and corrected for batch effects.⁽²⁰⁾

Correlation of lncRNA expression profiles with NASH phenotypes

To determine the correlations between lncRNA expression and NASH phenotypes, Spearman's rank correlation coefficients were determined between lncRNA expression values and the values of the measured traits, including NASH phenotypes. For these probe-level correlations, permutation testing was performed to estimate the false discovery rate (FDR)-corrected *P*-values. To correct for age,

gender and BMI, a linear model was run for all lncRNAs and their top significant phenotype associations. For these genome-wide correlations, we made use of the FDR-corrected P -value.

Replication of the associations for microarray probes

In order to replicate our findings, we downloaded a dataset from the Gene Expression Omnibus (accession number GSE33814).⁽²¹⁾ The dataset consisted of 44 human liver tissue samples obtained from patients with alcoholic and non-alcoholic steatohepatitis (normal [n=13], steatosis [n=19], and steatohepatitis [n=12]) obtained from patients undergoing liver surgery for hepatocellular carcinoma, malignancies/metastatic diseases, or benign tumors of the liver and from organs dedicated to transplantation. However, the cohort contained both alcoholic and non-alcoholic steatohepatitis.

There was no individual phenotype information available and we could not compute analysis for ASH and NASH patients separately. Healthy, non-tumorous liver tissue with no detectable pathological changes was removed from patients undergoing surgical resection of liver metastases as control tissue. Whole genome expression microarray SentrixH Human-6 v3 expression bead chips (Illumina) were used, which encompass probes for 48,804 genes including lncRNAs. These data were log₂-transformed and quantile normalized. To test whether lnc18q22.2 associated with liver cancer, we compared liver expression of lncRNA between 73 HCC patients and 85 healthy control samples, downloaded from the Sequence Read Archive [SRA]- <http://www.ncbi.nlm.nih.gov/sra/>. As a positive control, we also checked two established cancer lncRNAs (*MALATI*⁽¹⁵⁾ and *HULC*⁽²²⁾), both showing significant associations with HCC (*MALAT*: $P=3.00 \times 10^{-10}$ and *HULC*: $P=3.64 \times 10^{-5}$) (Supporting Figure S6). Moreover, no aetiology information of HCC patients was available.

Liver-specific expression and structure of lnc18q22.2

To assess the expression level and transcript structure of lnc18q22.2 in the liver, we first compared its predicted structure as annotated in the GENCODE and Human Body Map databases. In addition, we extracted RNA-seq data on 30 tissue and 67 cell types through the Sequence Read Archive [SRA] - <http://www.ncbi.nlm.nih.gov/sra/>, including 63 liver samples and 34 HepG2 cell line samples.⁽²³⁾ Expression values in these samples were normalized with the Trimmed Mean of M-values method using the R package "edgeR"⁽²⁴⁾ The average of the normalized expression values per tissue or cell line was used. The RNA-seq read distribution showed a liver-specific structure for lnc18q22.2 and confirmed the liver-specificity of its expression. Further, several RT-PCR and quantitative RT-PCR (qRT-PCR) experiments were performed to validate the expression and structure of lnc18q22.2 and its cellular location, as described in detail in the online methods. In brief, to evaluate the potential of lnc18q22.2 as a non-invasive biomarker, we measured the abundance of lnc18q22.2 in 8 plasma samples and 1,141 whole blood samples. We validated the transcript structure of lnc18q22.2 using qPCR, followed by Sanger sequencing. We performed qRT-PCR to validate the association of lnc18q22.2 in 33 randomly selected liver samples, including normal (n=8), NAFLD (n=8) and NASH (n=17) samples. We tested the expression of lnc18q22.2 in five hepatocyte cell lines (hepatocellular carcinoma [HCC]-derived HepG2 [ATCC, HB-8065], Hep3B [ATCC, HB-8064], Huh7 [JCRB Cell Bank, JCRB0403]; the non-tumorous cell line IHH⁽²⁵⁾ and in RNA isolated from 3 different batches of human primary hepatocytes (HPH) [Tebu-Bio, Heerhugowaard, The Netherlands]. Moreover, the log₂ ratio of cytoplasmic and nuclear fractions of lnc18q22.2 was estimated in HepG2 cell line.

lnc18q22.2 co-expression network analysis

To predict a function for lnc18q22.2, we performed guilt-by-association analysis using data from 37,776 genes on the Illumina microarray. We assessed whether lnc18q22.2 expression correlated

with the expression of genes in *cis* (within 5 Mb distance) and in *trans* (genome-wide) using Spearman's correlation test. A FDR of 0.05 was used to correct for multiple testing.⁽²⁶⁾ All significant correlations (FDR <0.05) were analyzed for pathway analysis using the DAVID database (<https://david.ncifcrf.gov>).⁽²⁷⁾

Lnc18q22.2 knockdown, cell survival counts and western blotting

To knockdown *lnc18q22.2*, we designed two short hairpin RNA (shRNA) cassettes for cloning into the lenti-viral pLKO TRC vector. The cassettes were specifically designed using the full *lnc18q22.2* sequence and targeted only *lnc18q22.2* and not the overlapping transcript. For this purpose, we used the siRNA selection program (<http://sirna.wi.mit.edu/>) and designed two shRNAs and one mock shRNAs (see Online Methods). Upon annealing of the oligos, the shRNAs were cloned into the pLKO TRC vector and lentiviral particles were produced as described previously.⁽²⁸⁾

Cell survival counts. Cells (HepG2, Hep3B, Huh7, IHH, HEK293T and HeLa) were seeded in triplicate into 12 well plates for counting surviving cells and transduced with lentiviral particles as described above. Surviving cells were counted after 3, 6 and 9 days of puromycin selection.

The effect of lnc18q22.2 knockdown on apoptosis (western blot). The cleavage of Poly(ADP-ribose) polymerase 1 (PARP-1) was assessed by western blotting as an indicator of apoptosis. Total cell lysates were extracted from cells treated with virus particles expressing shRNA1, shRNA2 or control shRNAs. Protein concentration was determined by BCA assay (Pierce, Rockford, IL, USA) and proteins were separated by 8% SDS-PAGE and then transferred to PVDF membranes. The membranes were probed with cleaved PARP-1 antibody (1:1000) (Cell Signaling Technology)

detecting both full size (116 kDa) and cleaved PARP protein fragment (89 kDa). Anti-beta actin antibody (1:1000) was used as a control. Membranes were incubated overnight at 4°C, followed by 1 hour incubation with HRP-labeled secondary antibody. The Femto kit (Thermo Fisher Scientific) was used for detection and the signal was quantified using the ChemiDoc XRS gel documentation system (Bio-Rad Laboratories, Hercules, USA). Experiments were performed in triplicate for all three time points (1, 2 and 3 days after virus transduction). The results were similar at all time points, therefore only the results from day 3 are presented.

The effect of lnc18q22.2 knockdown on apoptosis and necrosis (nuclear staining). IHH and Huh7 cells were incubated in virus media for 48 h and analyzed for necrosis and apoptosis. Sytox green staining (Invitrogen, S7020) was used to detect necrotic nuclei (1:40000 dilution, for 15 min)⁽²⁹⁾ and acridine orange staining (Sigma, A8097) was used to detect apoptotic nuclei (1:4000 dilution, for 15 min).⁽³⁰⁾ Fluorescent nuclei were visualized using an EVOS™ FL Cell Imaging System (Advanced Microscopy Group, Bothell, WA). Pictures were taken at three time points (1–3 days after virus transduction), in triplicate.

RNA-seq of lnc18q22.2 knockdown cell lines. HepG2 and Hep3B were seeded into six well plates (200,000 cells per well) and incubated with lentivirus particles for 48 h once 80% confluency was reached. Green fluorescent protein (an in-house generated plasmid similar to pRRLSIN.cPPT.PGK-GFP.WPRE from Addgene) was used to monitor the transduction efficiency in all cell lines. After the virus-particle-containing medium was removed (after 48 hours), fresh complete culture medium was added for 24 hours. After 72 hours, Hep3B and HepG2 cells were treated with puromycin (1 µg/ml) for 3 and 4 days, respectively, to produce stable cell lines, followed by RNA isolation. All experiments were performed in duplicate. Twelve samples in total were selected for RNA

sequencing, including 6 samples per cell line (HepG2, Hep3B): knockdown shRNA1, knockdown shRNA2 and control mock shRNA, each in duplicate. RNA was isolated using Qiazol reagent (Qiagen, Germantown, MD, USA) and purified using the RNeasy Mini Kit (Qiagen). RNA concentration was measured by spectrophotometry and cDNA was reverse transcribed for qRT-PCR. Before RNA-seq libraries were prepared, qRT-PCR was performed to confirm lnc18q22.2 knockdown and the quality of the isolated RNA was measured on a bioanalyzer (PerkinElmer LabchipGX, PerkinElmer, Waltham, MA, USA). Sample preparation was done using standard Illumina TruSeq mRNA-SamplePrep, and paired-end sequencing was performed on the Illumina HiSeq2500 sequencer. On average, ~18 million reads were produced per sample. All RNA-seq reads were aligned to the human genome (hg19) using STAR⁽³¹⁾ and rlog normalized using the R package “DESeq2”.⁽³²⁾ The same package was used to analyze differentially expressed genes between the two knockdown groups versus control. Differentially expressed genes with a FDR <0.01 were selected for pathway enrichment analysis. The DAVID database was also used for this purpose.⁽²⁷⁾

Results

lnc18q22.2: a lncRNA associated with NASH

Whole genome gene expression oligonucleotide arrays have played a crucial role in quantitatively determining the levels of gene expression. Even though most of the currently available commercial microarrays are designed to capture all known protein-coding transcripts, they also include subsets of probes that capture transcripts of unknown function. To identify lncRNAs associated with NASH, we took advantage of microarray-based expression data of 82 liver samples and mapped 4,468 microarray probes to 4,383 lncRNAs located in intergenic regions, hereafter referred to as the in-

house microarray data (Figure 1). Spearman's rank correlation revealed three lncRNA probes that correlated with NASH-related phenotypes at a FDR of ≤ 0.05 (Supporting Table S2). The strongest association was detected for lncRNA *RP11-484N16.1* on chromosome 18, which correlated with NASH grade ($r=0.51$, $P=8.11 \times 10^{-7}$), lobular inflammation ($r=0.49$, $P=2.35 \times 10^{-6}$) and NAS score ($r=0.48$, $P=4.69 \times 10^{-6}$) (Figure 2). *RP11-484N16.1* expression also showed a nominally significant association with fibrosis ($r=0.35$, $P=0.0018$) (Supporting Figure S1A). The other two lncRNAs detected were *MAPKAPK5-AS1* and *RP4-763G1.2* (Supporting Table S2 and Supporting Figure S1B-C). After correcting for age, sex and BMI, only *RP11-484N16.1* was significantly associated to NASH (Supporting Table S2). We then named it, lnc18q22.2 based on its physical position. Interestingly, lnc18q22.2 was significantly associated with liver steatosis and steatohepatitis (including alcoholic and non-alcoholic steatohepatitis) in 44 independent liver biopsies ($r=0.47$, $P=0.0013$) (Supporting Figure S2), but not with hepatocellular carcinoma ($P=0.12$) (Supporting Figure S6).

Specific expression and transcript structure of lnc18q22.2 in liver and hepatocyte cell lines

lnc18q22.2 was previously annotated to chromosome region 18q22.2 and does not overlap with any established protein-coding genes except one putative transcript for the putative protein-coding gene *RP11-4104.1* (Figure 3A). The closest known protein-coding gene is the suppressor of cytokine signaling 6 (*SOCS6*), which is some 5 kb upstream (Supporting figure S3). lnc18q22.2 contains two exons and annotations of the second exon are not consistent across different databases. The GENECODE database indicates a length of 287 bp for this second exon whereas the liver tissue panel of the Human Body Map database annotation is longer, 537 bp, and fully overlaps with the

microarray probe of lnc18q22.2 (Figure 3A). We therefore further delineated the transcript structure of lnc18q22.2 in liver samples and validated the association of lnc18q22.2 with NASH. First, RNA-seq data from 2,432 samples from 30 different tissues and 67 different cell lines were extracted from the SRA, hereafter referred to as public SRA-seq data. The average intensity of SRA-seq reads from 63 liver samples confirmed the extended exon 2 seen in the Human Body Map database (Figure 3A). Thus, the total length of the lncRNA transcript was estimated to be 633 bp. Second, RT-PCR experiments were performed to validate the transcript structure of lnc18q22.2 (Figure 3A). The PCR products showed the expected length (Figure 3B) and were validated by Sanger sequencing. Moreover, the expression level of lnc18q22.2 and its association with NASH were validated in 33 random samples by qRT-PCR. The relative expression of lnc18q22.2 assessed by qRT-PCR was positively correlated with the intensity level of the microarray probe ($r=0.74$, $P=8.50 \times 10^{-7}$) (Supporting Figure S4A), NASH grade ($r=0.65$, $P=4.55 \times 10^{-5}$), NAS score ($r=0.58$, $P=8.64 \times 10^{-4}$), and lobular inflammation ($r=0.62$, $P=1.38 \times 10^{-4}$) (Supporting Figure S4B).

Liver-specific expression of lnc18q22.2 had already been suggested in the Human Body Map catalog in 2011.⁽³³⁾ Comparing the average expression level of lnc18q22.2 across 30 different tissues and 67 different cell lines (public SRA-seq data) confirmed that lnc18q22.2 is predominantly expressed in liver tissue and in the HCC cell line HepG2 (Figure 3C). lnc18q22.2 was not detected in whole blood ($n=1141$) or plasma samples of four healthy volunteers and four NASH patients (Supporting Table S4). The liver-specific expression of lnc18q22.2 was further confirmed by qRT-PCR analysis in five hepatocyte cell lines (HCC-derived Huh7, Hep3B, and HepG2 cells, non-tumorous IHH cells and primary human hepatocytes) and two non-hepatocyte cell lines (HEK293T and HeLa). lnc18q22.2 was expressed in all hepatocytes, especially HepG2, IHH and PHH. No expression was

detected in HEK293T cells and very low expression was found in HeLa cells (Figure 3D). Moreover, fractionation experiments showed that lnc18q22.2 was mainly present in the cytoplasm (Figure 3E).

To evaluate the protein-coding potential of lnc18q22.2, we used the Coding Potential Calculator tool (<http://cpc.cbi.pku.edu.cn/>)⁽³⁴⁾ and the Coding Potential Assignment Tool (<http://lilab.research.bcm.edu/cpat/index.php>)⁽³⁵⁾. Both tools did not detect an open reading frame (ORF) for both the novel and annotated sequence of lnc18q22.2.

Taken together, these results have validated the association of lnc18q22.2 with NASH and revealed its novel transcript structure, high expression in liver tissue, subcellular localization in the cytoplasm and lack of coding potential.

lnc18q22.2 is crucial for growth and viability of hepatocytes

To further elucidate the function of lnc18q22.2, two different shRNA cassettes were used to silence its expression in four different hepatocyte cell lines (HepG2, Hep3B, Huh7, and IHH) (Figure 4A). Both shRNAs significantly down-regulated the expression of lnc18q22.2 in all four hepatocyte cell lines, with shRNA1 showing a stronger effect than shRNA2 (Figure 4A). Notably, the silencing of lnc18q22.2 expression resulted in reduced growth in HepG2 and IHH cells (only shRNA1) and promoted cell death in Huh7 (both shRNA1 and shRNA2) and Hep3B cells (only shRNA1) (Figure 4B). Huh7 cells died within 2–4 days of shRNA1-mediated knockdown and within 4–6 days of shRNA2-mediated knockdown, whereas Hep3B cells died 6–8 days after shRNA1-mediated knockdown. HepG2 and IHH cells did not die, but cell growth in the shRNA1 knockdown was markedly reduced compared to controls. Furthermore, shRNA1 seemed to be more efficient in down-

regulating the expression of lnc18q22.2 than shRNA2 (Figure 4A). The downstream phenotype in shRNA1-mediated knockdown is consistently more severe than that in shRNA2.

To exclude any potential off-target effects of both shRNAs, we stably expressed both shRNAs in two control cell lines (HEK293T and HeLa cells) in which lnc18q22.2 was not expressed or showed a very low level of expression (Figure 3D). No differences in cell viability and cell growth were seen in the HEK293T and HeLa cells (Figure 4B).

To further characterize the cell death phenotype, we assessed cell viability in lnc18q22.2 knockdown in Huh7 cells (both shRNAs) and IHH cells (shRNA1). Cleavage of full size PARP-1 is a hallmark of apoptosis. We observed a significant reduction of full size (intact) PARP-1 (Figure 5A) and a significant increase in necrotic nuclei as visualized by using Sytox green staining (Figure 5B). But knockdown did not increase the number of apoptotic nuclei as visualized by Acridine orange staining (Supporting Figure 6).

lnc18q22.2 involvement in essential biological processes in hepatocytes

To gain more insight into the potential role of lnc18q22.2 in hepatocyte cell viability, we performed various pathway analyses on genes co-expressed with lnc18q22.2 based on the in-house microarray data and using the RNA-seq data from the lnc18q22.2 knockdown cell lines.

First, we examined whether lnc18q22.2 affects nearby protein-coding genes (i.e., the *cis*-regulatory effect) by testing the correlation between lnc18q22.2 expression and the expression of genes residing within 5 Mb, using the microarray data of the NASH cohort and the RNAseq data of 63 liver samples and 34 HepG2 cell lines from the public SRA-seq data (Supporting Table S3). Analysis of

the microarray data did not reveal any genes correlated with lnc18q22.2 within 5 Mb. However, the putative protein-coding genes *RP11-4104.1* and *SOCS6* were associated with lnc18q22.2 expression in the public-seq data (Supporting Table S3, Supporting Figure S3). The function of *RP11-4104.1* is unknown. Depletion of *SOCS6* has previously been linked to suppression of programmed cell death and apoptosis.⁽³⁶⁾ However, we observed the opposite in our cellular models. The protein-coding genes nearby could not explain the observed effect of lnc18q22.2 on cell viability.

At the genome-wide level, 1,985 genes were significantly co-expressed with lnc18q22.2 at FDR<0.05 level in the in-house microarray data (Figure 6A, Supporting Table S5). Among these, 984 positively co-expressed genes were enriched for the wound healing pathway and the regulation of apoptosis and cell death pathways, whereas 1,001 negatively co-expressed genes were enriched for the oxidation reduction pathway (Figure 6A).

We further performed RNA-seq experiments to profile gene expression in Hep3B and Hep2G cells after knockdown of lnc18q22.2; unfortunately, not enough cells could be harvested from the Huh7 knockdown experiment for RNA-seq analysis. From the genes within the 5 Mb region, *SOCS6* was down-regulated in both the HepG2 (log₂ fold change=-0.41, FDR=5.09x10⁻⁵) and Hep3B shRNA1 (log₂ fold change=-0.51, FDR=1.47x10⁻³) knockdown but not in the shRNA2 knockdown. No effect was observed for the putative protein-coding gene *RP11-4104.1*. At genome-wide scale, we confined the pathway analysis to genes that were significantly affected at FDR 0.01 level. In HepG2 cells, 4,045 genes were affected by shRNA1, 3,209 genes were affected by shRNA2 and 1,821 genes were affected by both shRNAs (Figure 6B). Out of the genes affected by both shRNAs, 1,625 genes (89.2%) showed the same direction of regulation (Supporting Table S6). In Hep3B cells, 4,976 genes were differentially expressed in shRNA1 and 3,766 genes in shRNA2 at FDR 0.01, with 1,724 of the 2,063 shared genes (83.5%) affected in the same direction in both shRNAs (Figure 6B, Supporting

Table S7). Pathway analyses were performed on the 1,625 regulated genes in HepG2 cells and the 1,724 regulated genes in Hep3B cells that were consistently affected by shRNA1 and shRNA2. The down-regulated genes in the knockdown (i.e. those positively regulated by lnc18q22.2) were consistently enriched for the pathways of cell death, apoptosis (enriched in anti-apoptotic genes) and translation elongation. The up-regulated genes in knockdown (i.e. those negatively regulated by lnc18q22.2) were mostly enriched for the oxidation reduction pathway (Figure 6B). These results are in line with our co-expression analysis of the microarray data (Figure 6A). The same pathways were enriched in the 201 up-regulated and the 278 down-regulated genes in HepG2 and Hep3B cells (Figure 6C, Supporting Table S8 and S9). These genes were most enriched in the translation elongation pathway ($FDR=6 \times 10^{-16}$) (Figure 6C). These results indicate that lnc18q22.2 may be directly or indirectly involved in numerous essential biological processes in hepatocytes, including oxidation reduction, translation elongation, and regulation of cell death.

Discussion

In recent years, several lncRNAs have been described to play a functional role in the pathogenesis of different liver diseases.⁽¹¹⁾ These lncRNAs can serve as biomarkers for use in disease diagnosis, in disease prognosis or in therapeutic response, and they may also represent direct targets for therapeutic intervention.^(37,38) In the current study, we identified lnc18q22.2 as a novel liver-specific lncRNA with elevated expression in the liver of NASH patients. Silencing the expression of lnc18q22.2 resulted in either a lethal phenotype or decreased cell viability in four hepatocyte cell lines. Pathway analysis indicated that lnc18q22.2 might be involved in mRNA translation, cell death, apoptosis and oxidative reduction. Elevated lnc18q22.2 expression was also observed in patients

with steatohepatitis in a mixed patient cohort of both ASH and NASH, but not in HCC patients. However, such analysis was performed in publically available datasets (with small sample size and/or without detailed phenotypic information), thus we cannot support or rule out the role of lnc18q22.2 in ASH, NASH- associated HCC or other liver diseases. This needs to be further investigated. Moreover, our data do not support the potential of lnc18q22.2 as a non-invasive biomarker for NASH, as it was undetectable in circulation, neither in NASH patients nor in whole blood samples.

Our data show that genes negatively regulated by lnc18q22.2 are enriched in the process of oxidation reduction. This is consistent with the observation that NAFLD is often accompanied by increased oxidative stress. Reactive oxygen species (ROS) attack cellular macromolecules such as DNA, lipids and proteins and have been detected in the liver of NAFLD patients and animal models of NAFLD.

^(39,40) The expression of lnc18q22.2 was elevated in NASH patients, indicating a putative suppression effect on the genes involved in redox reactions. Additionally, the genes positively regulated by lnc18q22.2 were enriched with pathways in translational elongation. Our data show that lnc18q22.2 is predominantly present in the cytoplasm of HepG2 cells. Cytoplasmic lncRNAs have been described that facilitate mRNA decay, stabilize mRNAs, and promote or inhibit the translation of target mRNAs through extended base-pairing.⁽⁴¹⁻⁴³⁾ It is possible that lnc18q22.2 regulates the translation of target mRNAs, but this hypothesis needs further experimental validation.

One of the most enriched pathways we observed is the regulation of cell death and apoptosis, which is consistent with the observed cell viability phenotype after lnc18q22.2 knockdown. Hepatocyte apoptosis is a major feature in NASH. To execute both intrinsic (by activating death receptors) and extrinsic apoptosis (by intracellular stress inducers), liver cells depend heavily on mitochondrial outer membrane permeabilization and its regulation by Bcl-2 proteins.⁽⁴⁴⁻⁴⁶⁾ Several anti-apoptotic

genes⁽⁴⁷⁾ were down-regulated after lnc18q22.2 knockdown, including *MCL1*, *BCL2L1*, *BCL2L2*, *BFAR*, *CARD10*, *IGFIR* and *MKL*. In line with it, we observed a significant reduction of intact PARP-1 and a significant increase in the number of necrotic nuclei after lnc18q22.2 knockdown. However, we did not detect the appearance of cleaved PARP-1 and/or an increase in apoptotic nuclei. These results pointed to a necrosis-like phenotype although we cannot exclude that this necrosis was preceded by apoptosis. Similarly, the network analysis showed that the increased expression of lnc18q22.2 in NASH livers was co-expressed with the genes involved in the negative regulation of apoptosis. In contrast, cell death and fibrosis are increased in NASH patients. Our results suggest that elevated lnc18q22.2 expression might be a protective mechanism against liver damage by inhibiting apoptosis of liver cells.⁽⁴⁸⁾ However, the lnc18q22.2 's role in NASH development still needs to be studied *in vivo* and the primary targets of lnc18q22.2 remain unclear. We do not yet know whether lnc18q22.2 affects cell viability directly or through other pathways such as redox and fatty acid metabolic processes or through translation of target and apoptotic genes. In this study, we performed a cross-sectional transcriptome analysis. To further understand the role of lnc18q22.2 in NASH progression, a longitudinal study should be performed.

In conclusion, our study has identified a liver-specific lncRNA, lnc18q22.2, with elevated expression in the liver of NASH patients. lnc18q22.2 played a crucial role in hepatocyte viability and is likely to play a regulatory role by inhibiting hepatocyte apoptosis and necrosis. The pathway analysis in lnc18q22.2 knockdown cells implicated several biological mechanisms that are also involved in NASH. However, these potential mechanisms need to be studied and validated *in vivo*.

Acknowledgements

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Figures and Figure Legends

A liver-specific long non-coding RNA with a role in cell viability is elevated in human non-alcoholic steatohepatitis

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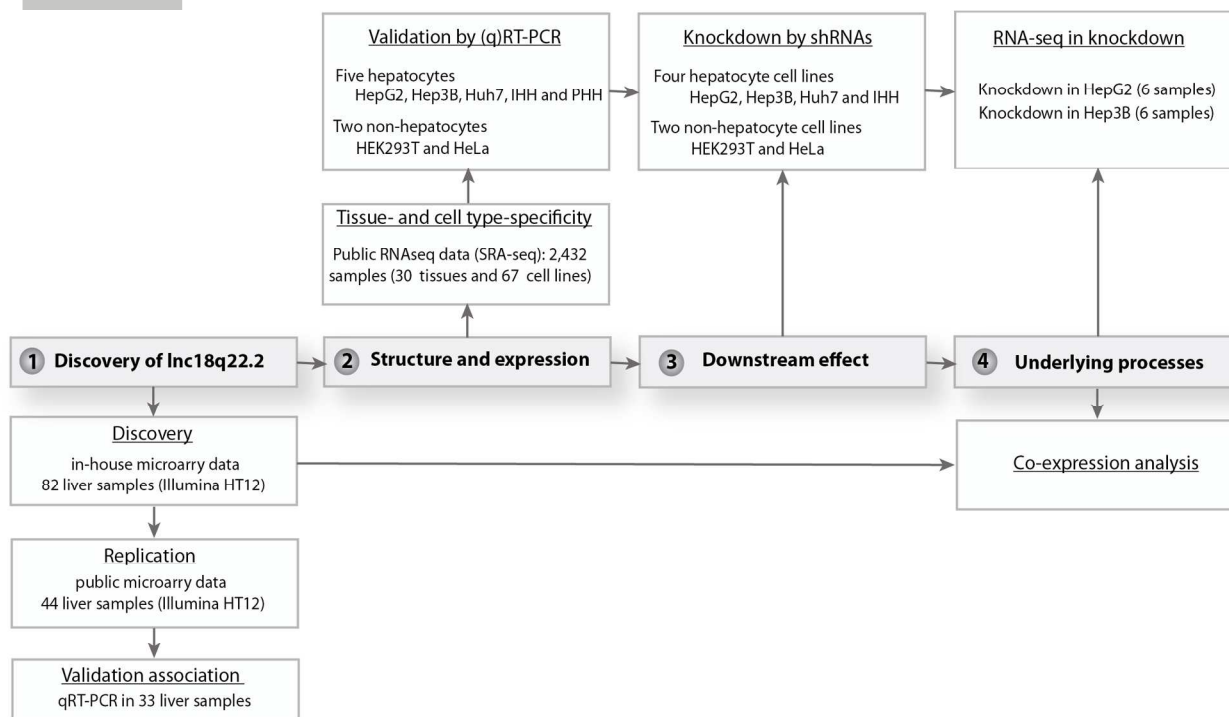
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Figure 1. Overview of the current study.



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Figure 2. Association of lnc18q22.2 expression with different degrees of NASH. Y-axis represents normalized probe expression of lnc18q22.2 from microarray data of 82 severely obese individuals. X-axes represent severity of the disease represented by different parameters: NASH grade, NAS score and lobular inflammation. Spearman's rank correlation analyses are reported at FDR<0.05 significance.

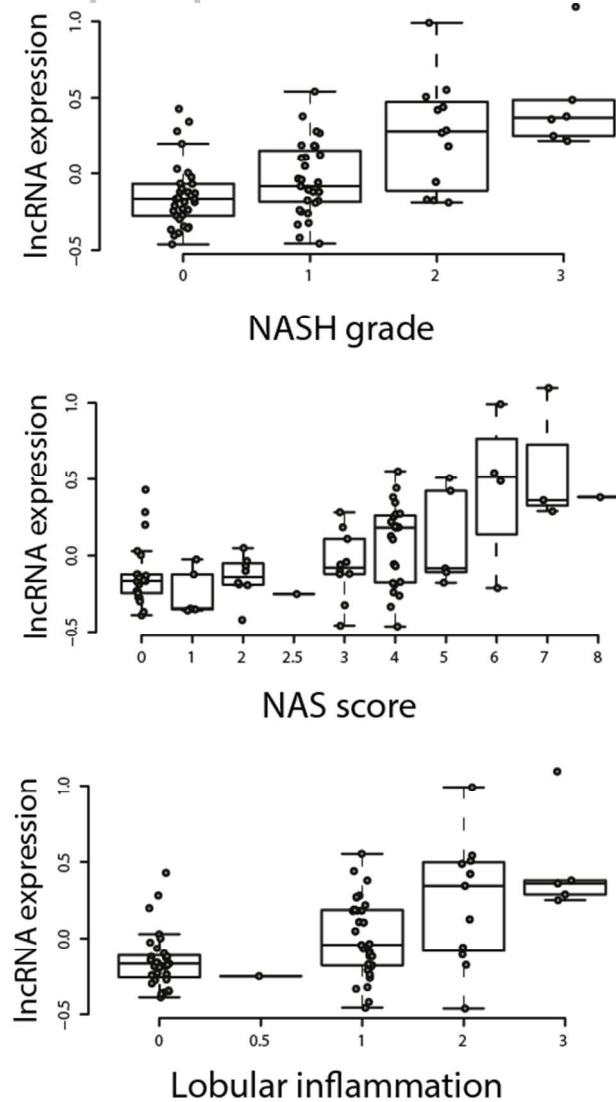


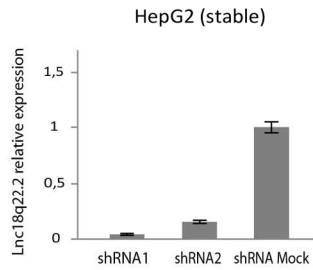
Figure 3. Lnc18q22.2 transcript structure, abundance and cellular location. (A) Lnc18q22.2 maps to chromosome 18q22.2 and contains two exons. Compared to the GENCODE annotation, the liver panel of Human Body Map suggested an elongated exon 2, which is shown in the white box. The average intensity of RNA-seq reads of 64 liver samples from the SRA database is plotted on this region, which confirms the extended exon 2. The physical locations of microarray probe, (q)RT-PCR primers for structure and expression validation and two shRNAs for Lnc18q22.2 depletion are indicated. (B) Experimental validation of Lnc18q22.2 gene structure using qRT-PCR and RT-PCR. Product 1 corresponds to qRT-PCR product. Products 2 and 3 correspond to RT-PCR products and were sequenced to validate the larger exon 2. S1= Sample1, S2 = Sample2, Blank = Non-template control. (C) The average expression of Lnc18q22.2 in 30 different tissues and 67 different cell lines (SRA dataset). (D) Validation of Lnc18q22.2 expression in three hepatocellular carcinoma derived cells lines (HepG2, Hep3B and Huh7), two non-tumorous cell lines (IHH [immortalized human hepatocytes] and PHH [primary human hepatocytes]) and two non-hepatocytes cell lines (HEK293T and HeLa) by qRT-PCR. Y-axis represents Lnc18q22.2 expression relative to beta-actin, GAPDH and HPRT (mean \pm SEM). (E) Cellular localization of Lnc18q22.2 by fractionating the HepG2 cells into cytoplasmic and nuclear fractions and performing qRT-PCR. To validate the isolation of the nuclear and cytoplasmic fractions, the enrichment of nuclear (MALAT, NEAT) and cytoplasmic (DANCR, OIPS-AS) abundance was analyzed by qRT-PCR. The Log₂ ratio between the cytoplasmic and nuclear fraction are shown on the Y axis; mean \pm SEM. 18S and U3 were used for normalization of cytoplasmic and nuclear fractions, respectively.

Figure 4. Silencing of lnc18q22.2 expression *in vitro* and phenotypic characteristics of the cells. (A) qRT-PCR of lnc18q22.2 expression after shRNA-mediated knockdown in three hepatocellular carcinoma cell lines (HepG2, Hep3B and Huh7) and one non-tumorous cell line, IHH. Values are shown with shRNA mock mediated lnc18q22.2 expression set to 1; mean \pm SEM. (B) Cell proliferation after shRNA-mediated depletion of lnc18q22.2. Cell counts on surviving cells were obtained after 3 (time point 1), 6 (time point 2) and 9 days (time point 3) of puromycin selection. At baseline (0), 200,000 cells were seeded per well for all cells.

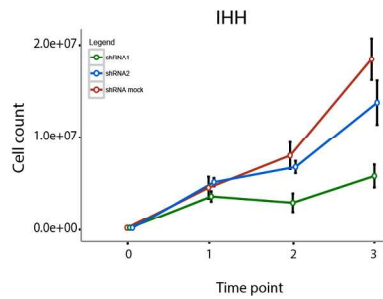
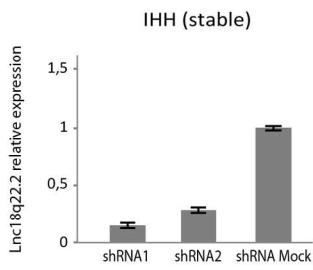
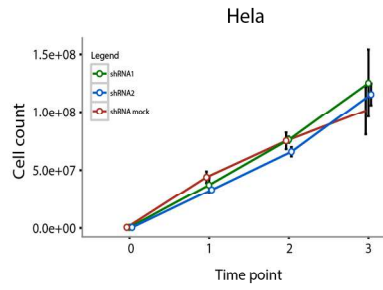
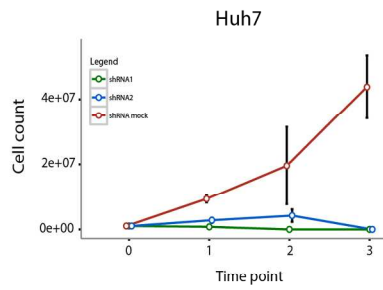
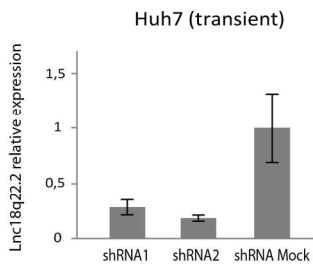
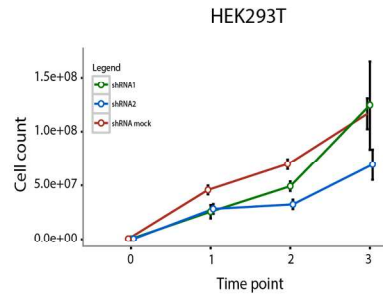
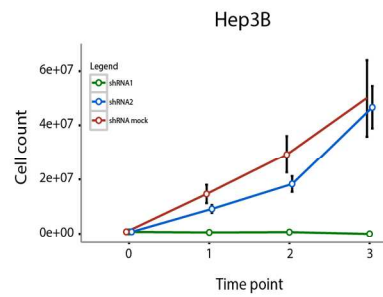
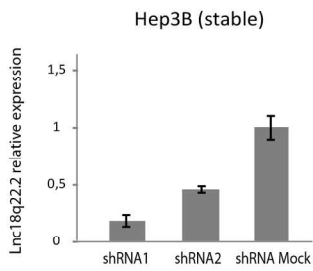
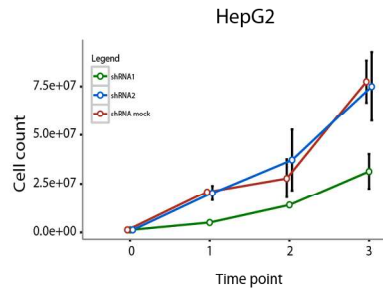
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Figure 5. Characterization of the cell death phenotype in Huh7 and IHH. (A) The effect of lnc18q22.2 knockdown on apoptosis. The western plots of protein PARP-1 (the marker for apoptosis) in lnc18q22.2 knock-down are shown for Huh7 and IHH cell lines (day 3 after viral transduction). The size of intact PARP-1 (Full PARP) is at 116 kDa and the size of the cleaved PARP-1 products (Cleaved PARP) is at 89 kDa. The reduction of full PARP-1 protein of three replicates is quantified and presented in the bar plot (mean \pm SEM). Positive control for apoptosis was cells treated with cisplatin (10 μ g/ml media for 24h and 48h in IHH and Huh7, respectively). Negative control was cells in normal media without any treatment. (B) The effect of lnc18q22.2 knockdown on necrosis. Cell nuclei were stained for presence of necrosis using Sytox green on day 3 after viral transduction and then fluorescent microscopy pictures were taken. Cell nuclei stained in green represent necrotic cells. Positive control for necrosis were cells treated with H₂O₂ (5 μ M for 2h and 5h in Huh7 and IHH, respectively). Negative control was cells in normal media without any treatment. Size bar = 400 μ m.

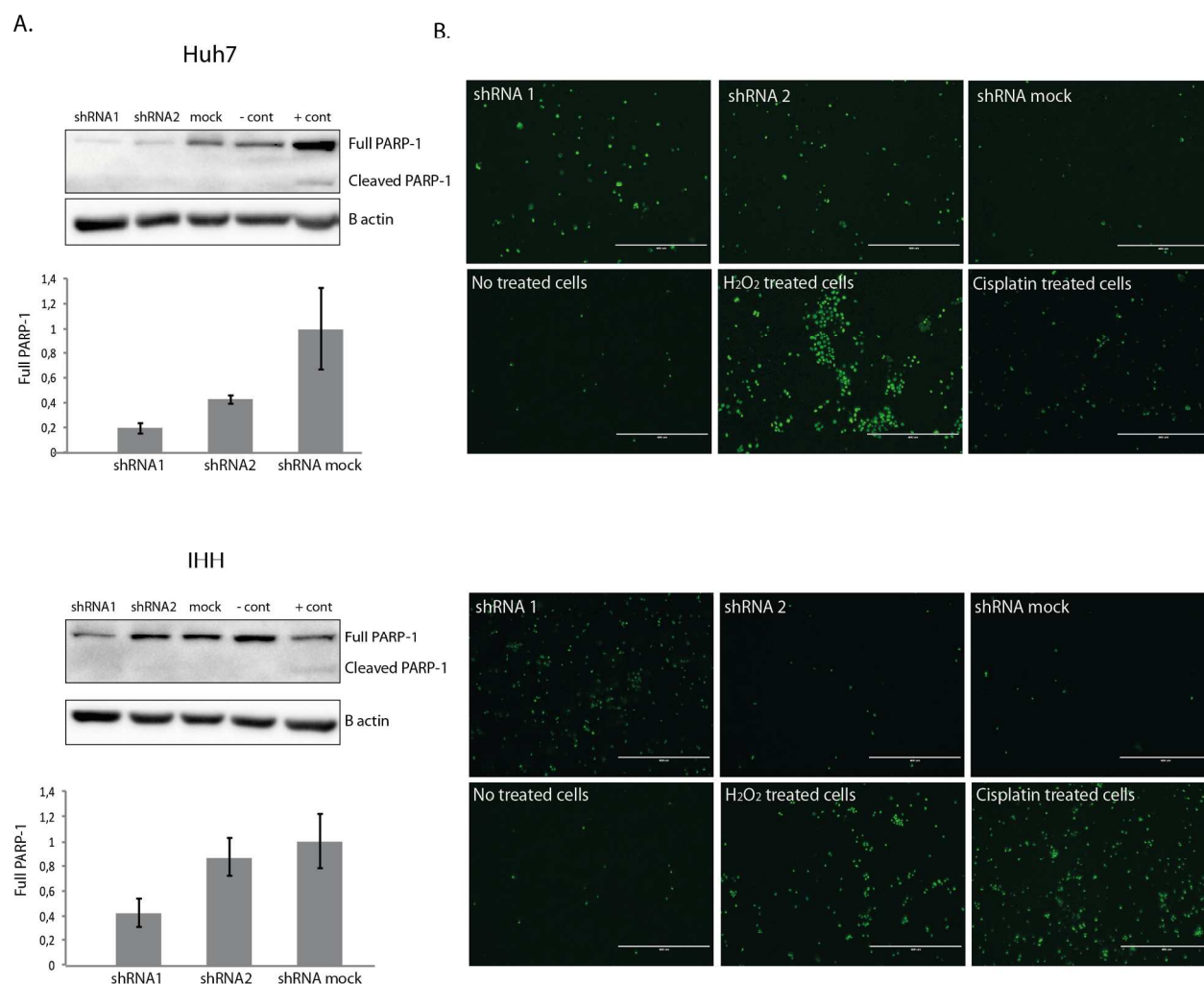
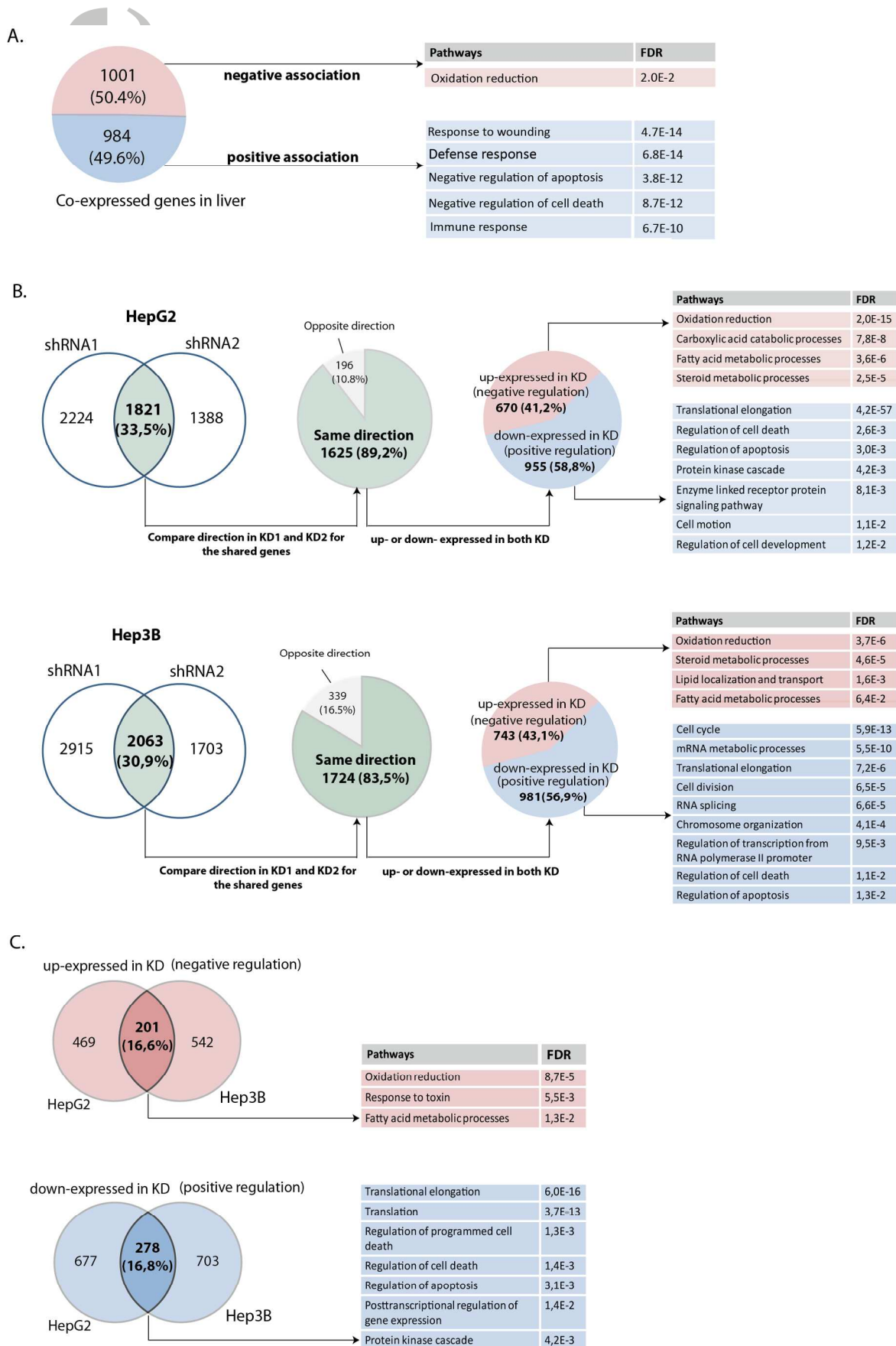


Figure 6. GO pathway enrichment analysis. (A) Genome-wide co-expression analysis from the human microarray data detected potential downstream genes and molecular processes associated to lnc18q22.2. Genes were split in two groups: those positively correlated with lnc18q22.2 and those negatively correlated with lnc18q22.2. All co-expressed genes were significant at $FDR < 0.05$. (B) Gene enrichment analysis on differentially expressed genes from RNA-seq in HepG2 and Hep3B cells after lnc18q22.2 depletion. Per cell line, the Venn diagram shows the number of shared genes affected by both shRNA1 and shRNA2. The pie chart indicates the total number of genes affected in the same direction. The pathway analysis was then confined to the genes that were negatively regulated or positively regulated by lnc18q22.2, respectively. All GO biological processes at $FDR < 0.05$ are shown. (C) The pathway analysis for the upregulated and downregulated genes shared in both HepG2 and Hep3B cells. All pathways were significant at $FDR < 0.05$.



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Supporting Information

A liver-specific long non-coding RNA with a role in cell viability is elevated in human non-alcoholic steatohepatitis

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Online Methods:

Liver biopsies collection and processing

Liver wedge biopsies were removed immediately after the abdomen was opened and before the intestines or liver were manipulated. Fragments 0.5 × 0.5 cm in size were dissected from liver tissue. For RNA extraction, fragments were cut into smaller pieces, snap-frozen in liquid nitrogen, and stored at -80°C. For cryosectioning, tissue fragments of similar size were immersed in Tissue-Tek optimal cutting temperature compound (Sakura Finetek Europe, Zoeterwoude, the Netherlands) and then mounted onto a piece of cork for freezing in pre-chilled isopentane on dry ice. After cryoembedding, samples were stored at -80°C. For formalin fixation, tissue fragments were immersed in formalin solution overnight at 4°C and then dehydrated through a graded ethanol series before paraffin embedding.

Liver-specific expression of lnc18q22.2 from public dataset

To assess expression of lnc18q22.2 in a wide-range of tissue types and cell lines, we used 1,262 raw human RNAseq datasets from different tissue types and cell lines. This dataset was described in our previous paper ⁽¹⁾. In brief, we downloaded all raw sequencing data from 9,527 public human RNAseq runs. The RNAseq reads were mapped to human genome. After quality check, a total of 1,262 high-quality RNAseq datasets, with an average of 22 million reads per sample, were included for further analysis that cover 30 tissue types and 67 cell types. Gene expression levels were quantified using HTSeq-count 0.5.4.

lnc18q22.2 abundance in plasma and whole blood

To evaluate the potential of lnc18q22.2 as a non-invasive biomarker, we measured the abundance of lnc18q22.2 in plasma and whole blood. For plasma collection, whole blood from four healthy volunteers and four NASH patients (BMI>40; NAS score >7) was collected in EDTA tubes and centrifuged at 1,200

g for 10 min at 4°C to gather the blood cells. Supernatants were transferred to microcentrifuge tubes and centrifuged at 12,000 g for 10 min at 4°C to remove cellular components. Plasma was then carefully collected, and total RNA was extracted from 500 µl plasma using the mirVana PARIS Kit (Foster City, CA, USA) according to the manufacturer's instructions. We used two lncRNAs (*MALAT1* and *NEAT*) known to be present in plasma as positive controls of circulating non-coding RNA biomarkers. To evaluate the abundance of lnc18q22.2 in whole blood, RNA sequencing data from 1,141 whole blood samples was downloaded through the SRA. The total number of reads aligned to lnc18q22.2 region was assessed.

Validating the transcript structure of lnc18q22.2

To assess the transcript structure of lnc18q22.2 in the liver, RT-PCR was run on HepG2 samples using two additional primers, PCR2_FOR (TGCCAGCTGTCAATGAACCTA) and PCR3_FOR (TATGAGTGGCTACCTGCCTC), paired with the qPCR1_REV primer described below. PCR products were Sanger sequenced at GATC-Biotech (<https://www.gatc-biotech.com/en/home.html>) to confirm the presence of the longer exon 2 where the initial microarray probe was located.

Validating the association of expression

To validate the correlation results from the microarray analysis, we performed a validation experiment measuring lnc18q22.2 expression using qRT-PCR in 33 randomly selected liver samples from the discovery cohort, including normal (n=8), NAFLD (n=8) and NASH (n=17) samples. Measurements were performed in triplicate, and a standard curve was used to compare absolute transcript quantities. lnc18q22.2 primers for qRT-PCR were designed based on Human Body Map and GENCODE annotations using the Primer 3 program (http://biotools.umassmed.edu/bioapps/primer3_www.cgi). Primers were obtained from Biologio (Nijmegen, the Netherlands) with the following sequences in the 5'

to 3' direction: qPCR1_FOR (GGAGGCTGTTGACAGGCAATG), qPCR1_REV (GACTGCAACTTAAGCTATCTGG). We measured the expression of lnc18q22.2 relative to the housekeeping gene beta actin using the primers described before.⁽²⁾ Expression was then correlated to the intensity of the corresponding microarray probe and to the NASH phenotype.

Validating hepatocyte-specific expression of lnc18q22.2

We tested the expression of lnc18q22.2 in five hepatocyte cell lines (hepatocellular carcinoma [HCC]-derived HepG2 [ATCC, HB-8065], Hep3B [ATCC, HB-8064], Huh7 [JCRB Cell Bank, JCRB0403]; the non-tumorous cell line IHH⁽³⁾ and in RNAs isolated from 3 different batches of primary human hepatocytes (PHH) [Tebu-Bio, Heerhugowaard, The Netherlands]. For comparison, two additional control cell lines (HeLa [ATCC, CCL-2] and Hek293T [ATCC, CRL-3216]) were analyzed. We measured lnc18q22.2 expression in these cells using qRT-PCR with the previously described primers (qPCR_FOR and qPCR_REV). Cells were cultured in a humidified incubator with 95% CO₂ at 37°C. The cells were grown in Dulbecco's Modified Eagle Medium (Gibco BRL, Grand Island, NY, USA) supplemented with 10% fetal bovine serum (FBS, Gibco BRL), 100 U/ml penicillin, and 100 mg/ml streptomycin (Gibco BRL). IHH cells were cultured in complete Williams' medium E (2 mmol/L glutamine, 20 mU/ml insulin, 50 nmol/L dexamethasone, 100 U/ml penicillin and 100 mg/ml streptomycin) supplemented with 10% FBS.

Determination of the cellular localization of lnc18q22.2

Nuclear and cytoplasmic fractions were separated from HepG2 cells by adding 200 µL lysis buffer (140 mM NaCl, 1.5 mM MgCl₂, 10 mM Tris-HCl pH 8.0, 1 mM DTT, and 0.5% Nonidet P-40) to pellets of ~4 million cells, followed by 5 min incubation on ice and centrifugation at 1000 g for 3 min at 4°C. (4) The supernatant was collected as the cytoplasmic fraction. The pellet containing the nuclei was washed

twice with lysis buffer. 1 ml TriPure reagent (Roche) was added to the cytoplasmic fraction (~200 μ L), nuclear pellet, and total cell pellet, and RNA was isolated as described before. Nuclear genes were normalized to U3 RNA and cytoplasmic genes were normalized to 18S RNA. As controls for the fractionation, we used known nuclear and cytoplasmic lncRNAs: *MALAT1* and *NEAT* for the nuclear fraction and *DANCR* and *OIP5-AS* for the cytoplasmic fraction (primer sequences were taken from ⁽⁴⁾). The log₂ ratio of cytoplasmic and nuclear fractions were calculated and plotted for each gene.

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Design of shRNAs

To knockdown lnc18q22.2, we designed two short hairpin RNA (shRNA) cassettes for cloning into the lenti-viral pLKO TRC vector. The cassettes were specifically designed using the full lnc18q22.2 sequence and targeted only lnc18q22.2 and not the overlapping transcript. For this purpose, we used the siRNA selection program (<http://sirna.wi.mit.edu/>). Cassette 1 was created by annealing of

shRNA1_FOR:

CCGGAGGTCGTGGTGAGAAGCAAATCTCGAGATTTGCTTCTCACCACGACCTTTTTTG; and

shRNA1_REV:

AATTCAAAAAGGTCGTGGTGAGAAGCAAATCTCGAGATTTGCTTCTCACCACGACCT.

Cassette 2 was created by annealing of shRNA2_FOR:

CCGGGACAGGCAATGATTTCTGTAACCTCGAGTTACAGAAATCATTGCCTGTCTTTTTG; and

shRNA2_REV:

AATTCAAAAAGACAGGCAATGATTTCTGTAACCTCGAGTTACAGAAATCATTGCCTGTC. A

mock shRNA hairpin was created based on oligos shRNA_mock_FOR :

CCGGTTCTCCGAACGTGTCACGTGTCTCGAGACACGTGACACGTTCGGAGAATTTTTG; and

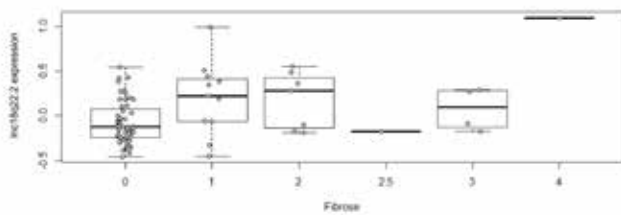
shRNA_mock_REV:

AATTCAAAAATTCTCCGAACGTGTCACGTGTCTCGAGACACGTGACACGTTCGGAGAA.

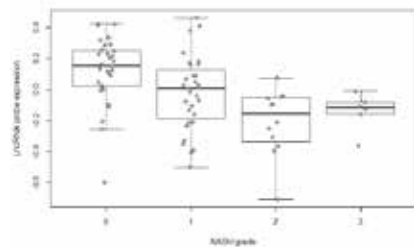
Supporting figures:

Figure S1. lncRNAs from the microarray data of 82 severely obese individuals correlate with different NASH phenotypes. (A) lnc18q22.2 correlated with the grade of fibrosis ($r = 0.35$, $P = 0.0018$). (B) lncRNA *MAPKAPK5-AS1* correlated with NASH grade ($r = 0.51$, $P = 8.11 \times 10^{-7}$). (C) lncRNA *RP4-763G1.2* was correlated with NAS score ($r = -0.48$, $P = 5.80 \times 10^{-6}$) and ASAT ($r = -0.49$, $P = 5.08 \times 10^{-6}$). Correlations in B and C were significant at $FDR < 0.05$, but not significant after correction for age, gender and BMI. Y-axis represents normalized probe expression for lncRNAs; X-axis represents severity of the disease indicated by different measures of disease severity. ASAT = aspartate transaminase.

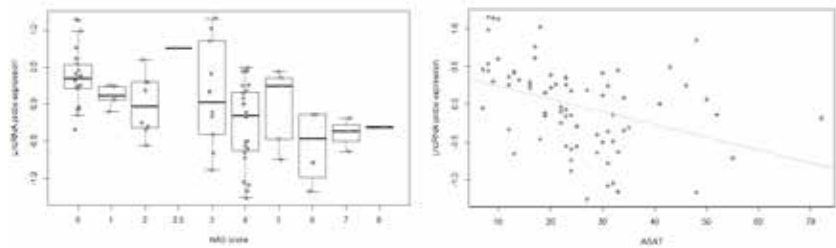
A.



B.



C.



Accep

Figure S2. Replication of the correlation between lnc18q22.2 and NASH phenotypes. Expression data of 44 liver biopsies (normal n = 13; steatosis n = 19; steatohepatitis n = 12) from patients with alcoholic and non-alcoholic steatohepatitis was extracted from the GSE33814 study. Lnc18q22.2 expression was consistently positively correlated with steatosis and steatohepatitis ($r = 0.47$, $P = 0.0013$)

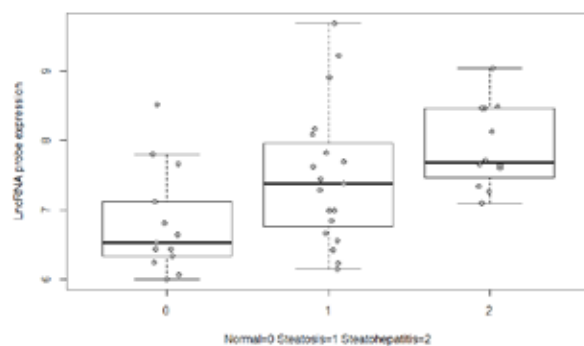
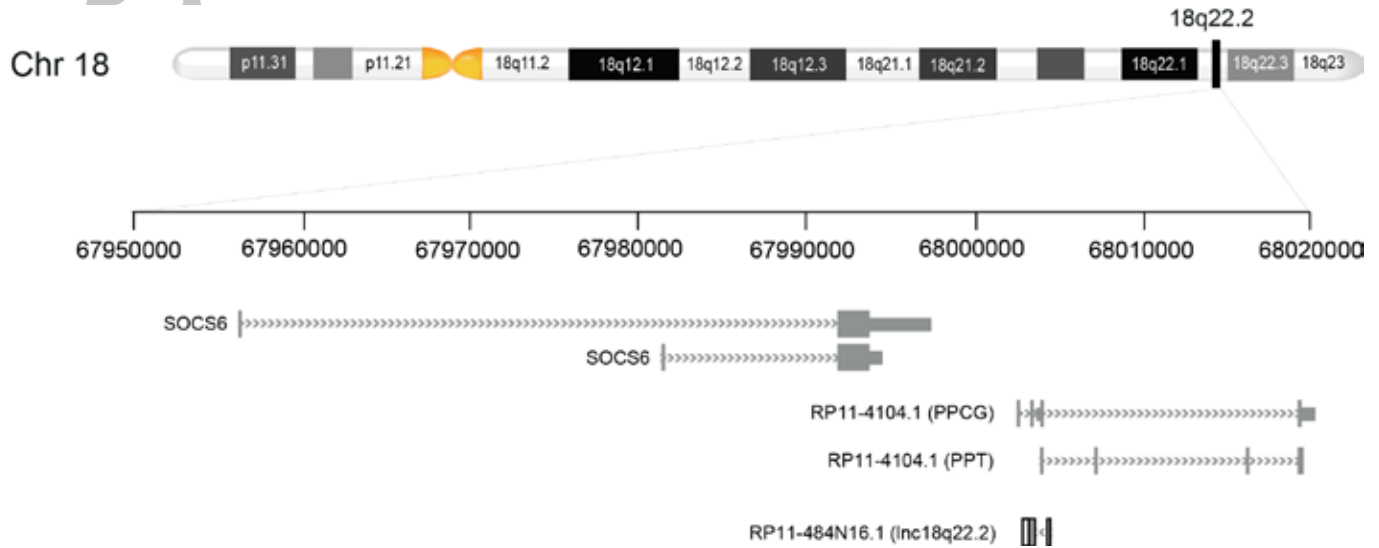


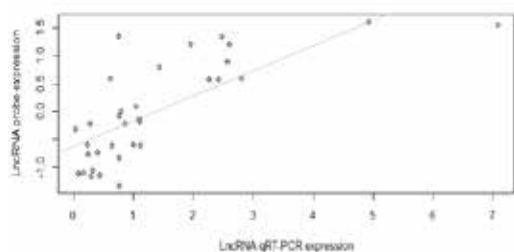
Figure S3. Overlapping and nearby genes in the locus of lnc18q22.2. Lnc18q22.2 locates at chromosome region 18q22.2, overlapping with a putative protein coding gene (PPCG) *RP11-4104.1* and a putative process transcript (PPT), but without any established protein-coding function. The closest coding gene, *SOCS6*, is also shown.



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Figure S4. Validation of lnc18q22.2 microarray expression using qRT-PCR in subset of 33 human liver samples. (A) Positive correlation between the relative expression of lnc18q22.2 and the expression level of the lnc18q22.2 microarray probe ($r = 0.74$, $P = 8.50 \times 10^{-7}$) in randomly selected 33 liver samples from the discovery cohort. Y-axis represents lnc18q22.2 probe expression (normalized data); X-axis represents lnc18q22.2 relative expression measured by qRT-PCR using β -actin for normalization. (B) Spearman's rank correlation between lnc18q22.2 relative expression measured by qRT-PCR and NASH phenotypes in subset of 33 liver samples. Correlations with NASH grade ($r = 0.65$, $P = 4.55 \times 10^{-5}$), NAS score ($r = 0.58$, $P = 8.64 \times 10^{-4}$) and lobular inflammation ($r = 0.62$, $P = 1.38 \times 10^{-4}$) are presented.

A.



B.

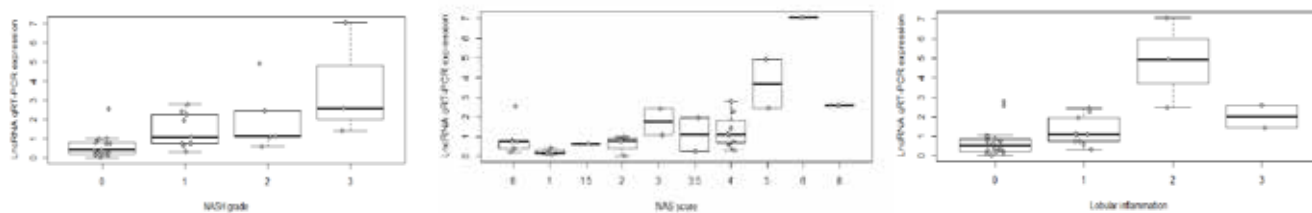
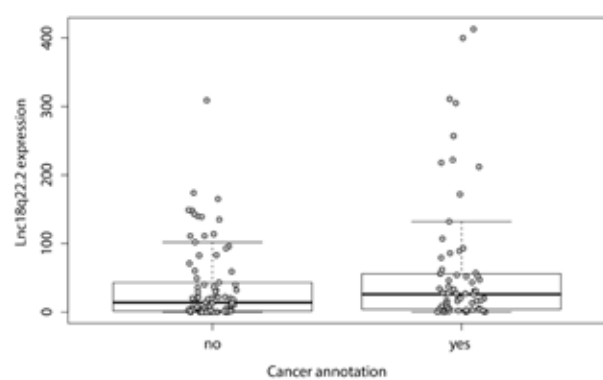


Figure S5. Expression of lnc18q22.2 and control lncRNAs in HCC. (A) No significant difference between the expression of lnc18q22.2 in healthy and HCC samples was observed ($P = 0.12$); (B) Significant difference was observed for known cancer overexpressed lncRNAs MALAT ($P = 3.00 \times 10^{-10}$) and HULC ($P = 3.64 \times 10^{-5}$). Student T-test was used to assess the significant difference in expression.

A.



B.

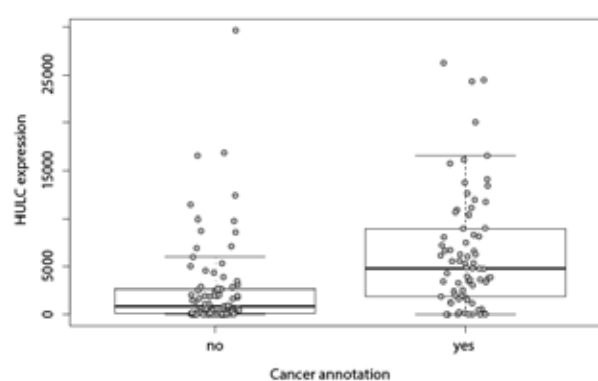
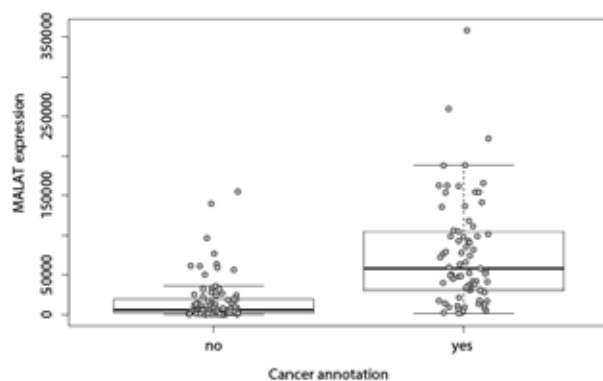
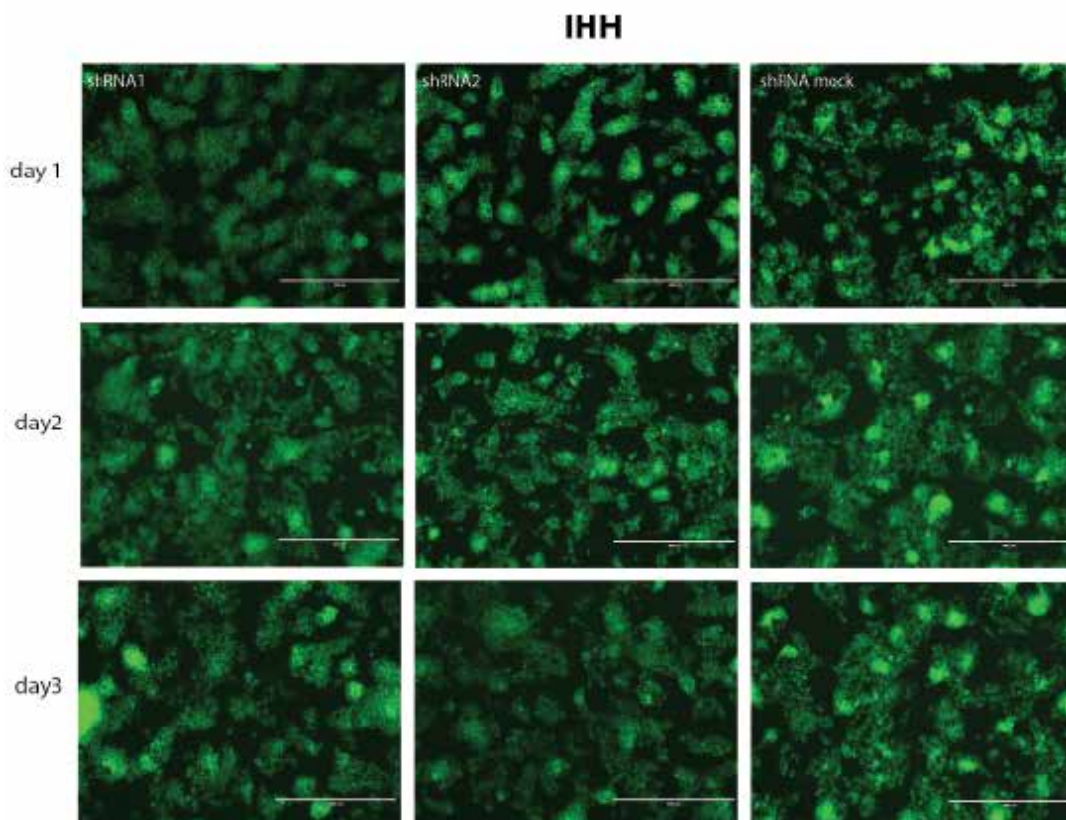
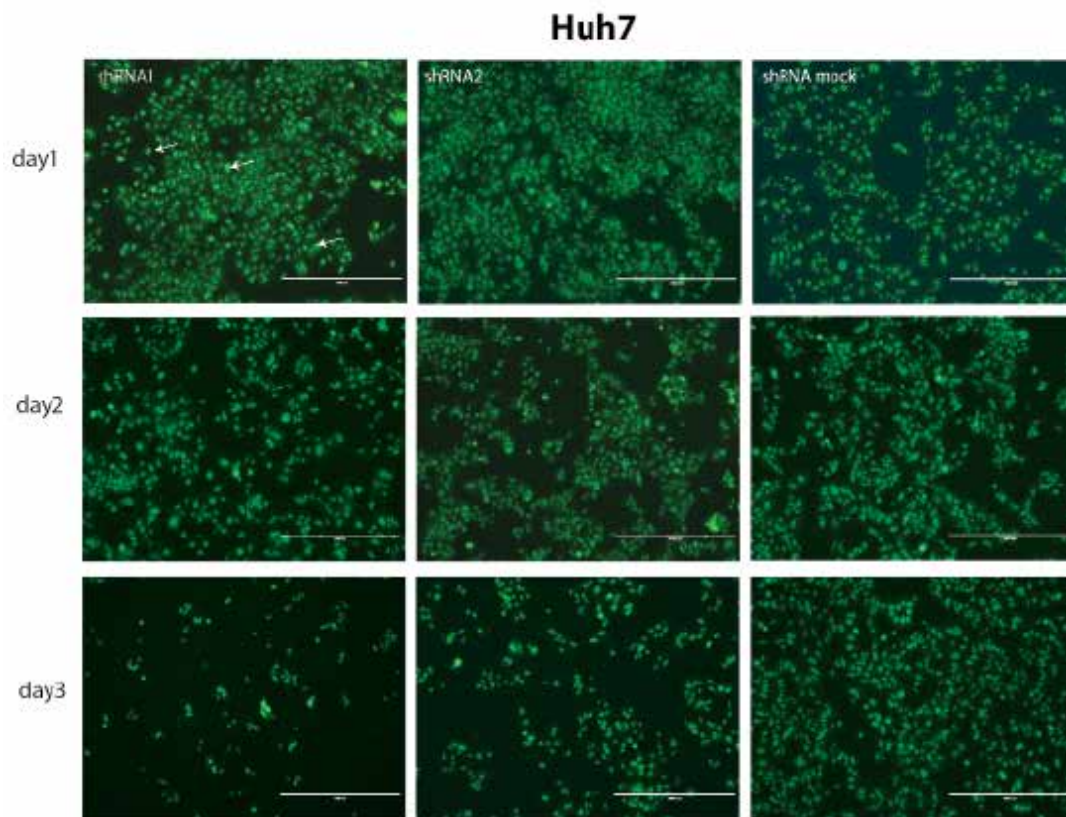


Figure S6. Characterization of the cell death phenotype in Huh7 and IHH. Cells were transduced with virus media, fluorescent microscopy pictures were taken after Acridine Orange nuclear staining in three time points (day 1-3 after virus transduction). Cell nuclei stained in light green represent apoptotic cells (white arrows). Size bar = 400 μ m.

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References for online methods

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Supporting Tables

A liver-specific long non-coding RNA with a role in cell viability is elevated in human non-alcoholic steatohepatitis

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- S1. Plasma and clinical parameters of the MORE study population
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- S3. Correlation between lnc18q22.2 and 5MB window genes (microarray data, SRA data)
- S4. lnc18q22.2 and control gene expression detected by qRT-PCR in plasma of four healthy volunteers and four NASH patients
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- S7. DE genes between KD1 vs Mock and KD2 vs mock in Hep3B after lnc18q22.2 knockdown
- S8. Upregulated genes (n=201) after lnc18q22.2 knockdown in HepG2 and Hep3B

S9. Downregulated genes (n=278) after Inc18q22.2 knockdown in HepG2 and Hep3B

S1. Plasma and clinical parameters of the MORE study population

| | <i>No. of individuals/ Mean (SD)</i> | | | |
|----------------------------|--------------------------------------|---------------|---------------|---------------|
| | <u>All individuals</u> | <u>Normal</u> | <u>NAFLD</u> | <u>NASH</u> |
| Number of individuals | 82 | 23 | 11 | 48 |
| Male/Female | 24/58 | 7/16 | 2/9 | 15/33 |
| Age (years) | 44.55 (9.77) | 42.3 (10.41) | 44.36 (9.46) | 45.67 (9.53) |
| BMI (kg/m ²) | 46.52 (9.69) | 42.76 (6.03) | 43.95 (6.53) | 48.82 (11.00) |
| Glucose (mmol/L) | 6.52 (2.07) | 5.79 (1.18) | 5.94 (0.96) | 7.03 (2.46) |
| Insulin (mU/L) | 19.06 (10.52) | 15.37 (10.38) | 21.06 (8.91) | 20.42 (10.67) |
| HOMA-IR (mmol/L) | 5.54 (3.62) | 4.09 (3.64) | 5.30 (2.26) | 6.30 (3.68) |
| HbA1c | 6.55 (1.4) | 6.09 (0.75) | 6.14 (0.63) | 6.85 (1.67) |
| Total Cholesterol (mmol/L) | 5.1 (1.16) | 4.8 (0.79) | 5.33 (0.73) | 5.20 (1.35) |
| HDL (mmol/L) | 0.99 (0.38) | 1.04 (0.35) | 1.06 (0.19) | 0.95 (0.43) |
| LDL (mmol/L) | 3.22 (1.02) | 2.94 (0.83) | 3.49 (0.90) | 3.30 (1.11) |
| TG (mmol/L) | 2.27 (2.07) | 1.81 (0.95) | 1.81 (0.95) | 2.59 (2.55) |
| FFA (mmol/L) | 0.72 (0.74) | 0.47 (0.24) | 0.73 (0.45) | 0.85 (0.91) |
| ALAT (U/L) | 26.53 (16.23) | 20.87 (7.3) | 23.30 (9.19) | 30.07 (19.55) |
| ASAT (U/L) | 24.73 (12.62) | 16 (6.93) | 25.5 (10.78) | 28.93 (13.13) |
| CRP (mg/L) | 9.77 (7.78) | 9.23 (7.25) | 11.33 (11.16) | 9.67 (7.30) |
| IL1b | 0.93 (1.13) | 0.56 (0.43) | 0.55 (0.17) | 1.16 (1.37) |
| IL6 | 5.19 (2.55) | 3.69 (1.53) | 4.35 (1.53) | 5.97 (2.78) |
| IL8 | 5.84 (2.75) | 5.89 (1.73) | 4.07 (1.04) | 6.21 (3.21) |
| TNF | 9.87 (6.33) | 7.91 (2.5) | 18.37 (15.04) | 8.74 (1.97) |

| | Number of individuals scored | Grade (number of individuals) | | | | | | | | | |
|----------------------------|------------------------------|-------------------------------|----|----|----|---|---|---|---|---|--|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Steatosis (0-3) | 82 | 21 | 21 | 28 | 12 | / | / | / | / | / | |
| Fibrosis (0-4) | 79 | 55 | 11 | 7 | 5 | 1 | / | / | / | / | |
| Lobular inflammation (0-3) | 81 | 31 | 34 | 11 | 5 | / | / | / | / | / | |

Hepatology

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|-----------------------|----|-----------------------|----|----|----|----|---|---|---|---|
| Ballooning (0-2) | 81 | 42 | 36 | 3 | / | / | / | / | / | / |
| NASH grade (0-3) | 82 | 33 | 31 | 12 | 6 | / | / | / | / | / |
| NASH stage (0-3) | 81 | 55 | 14 | 6 | 6 | / | / | / | / | / |
| NAS score (0-8) | 81 | 21 | 5 | 8 | 11 | 23 | 5 | 4 | 3 | 1 |
| | | (0=absent, 1=present) | | | | | | | | |
| Microgranulomas | 80 | 74 | 6 | / | / | / | / | / | / | / |
| Large lipogranulomas | 80 | 60 | 20 | / | / | / | / | / | / | / |
| Portal inflammation | 81 | 63 | 18 | / | / | / | / | / | / | / |
| Acidophilic bodies | 80 | 74 | 6 | / | / | / | / | / | / | / |
| Pigmented macrophages | 81 | 73 | 8 | / | / | / | / | / | / | / |
| Megamitochondria | 81 | 79 | 2 | / | / | / | / | / | / | / |
| Mallory hyaline | 81 | 79 | 2 | / | / | / | / | / | / | / |
| Glucogenated nuclei | 78 | 64 | 14 | / | / | / | / | / | / | / |

S2. Correlation results for 3 lncRNA with NASH phenotypes

| | Array Address probe ID | Gene Name | Chr | Phenotype | Spearman correlation | | | Linear model corrected for age, age ² and gender | | Linear model corrected for age, age ² , gender and BMI | |
|----|------------------------|---------------|-----|----------------------|----------------------|-----------------------|------------|---|-----------------------|---|-----------------------|
| | | | | | <i>r.value</i> | <i>p.value</i> | <i>FDR</i> | <i>estimate</i> | <i>p.value</i> | <i>estimate</i> | <i>p.value</i> |
| 1. | 3140138 | MAPKAPK5-AS1 | 12 | NASH grade | -0,53 | 4,06x10 ⁻⁷ | 0,025 | -1,64 | 5,42x10 ⁻⁵ | -1,45 | 0,0003 |
| 2. | 6060327 | RP11-484N16.1 | 18 | NASH grade | 0,51 | 8,11x10 ⁻⁷ | 0,023 | 1,68 | 2,36x10 ⁻⁸ | 1,63 | 2,06x10 ⁻⁷ |
| | | | | Lobular inflammation | 0,50 | 2,35x10 ⁻⁶ | 0,041 | 1,50 | 2,42x10 ⁻⁷ | 1,39 | 3,08x10 ⁻⁶ |
| | | | | NAS score | 0,48 | 4,69x10 ⁻⁶ | 0,058 | 3,64 | 4,84x10 ⁻⁷ | 3,28 | 5,20x10 ⁻⁶ |
| 3. | 3130592 | RP4-763G1.2 | 1 | ASAT | -0,49 | 5,08x10 ⁻⁶ | 0,056 | -8,96 | 0,0004 | -7,78 | 0,0031 |
| | | | | NAS score | -0,48 | 5,80x10 ⁻⁶ | 0,058 | -1,08 | 1,92x10 ⁻⁷ | -1,38 | 0,0008 |

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|---|--|--|
| | | | | | | | | | 5 | | |
|--|--|--|--|--|--|--|--|--|---|--|--|

S3. Correlation between Inc18q22.2 and 5MB window genes (microarray data, SRA data)

| GeneID | MORE microarray | | | | EnsemblID | SRA (RNAseq) | | | | | |
|---------------|---------------------------|---------|---------|------|-----------------|------------------|----------|----------|------------------|----------|----------|
| | Array Address probe ID | r.value | p.value | FDR | | SRA liver (n=63) | | | SRA HepG2 (n=34) | | |
| | | | | | | r.value | p.value | FDR | r.value | p.value | FDR |
| RP11-659F24.1 | - | - | - | - | ENSG00000264634 | -0,05 | 0,72 | 0,89 | -0,28 | 0,24 | 0,50 |
| RP11-526H11.1 | - | - | - | - | ENSG00000264869 | 0,15 | 0,32 | 0,59 | -0,31 | 0,20 | 0,46 |
| RP11-421N8.2 | - | - | - | - | ENSG00000264699 | 0,08 | 0,59 | 0,80 | NA | NA | NA |
| RP11-421N8.1 | - | - | - | - | ENSG00000260747 | 0,23 | 0,12 | 0,34 | 0,09 | 0,73 | 0,93 |
| RP11-128D14.1 | - | - | - | - | ENSG00000265425 | -0,05 | 0,75 | 0,91 | -0,15 | 0,54 | 0,76 |
| AKR1B10P2 | - | - | - | - | ENSG00000263355 | -0,04 | 0,77 | 0,92 | -0,15 | 0,54 | 0,76 |
| RP11-585K6.2 | - | - | - | - | ENSG00000264697 | -0,06 | 0,67 | 0,86 | -0,15 | 0,54 | 0,76 |
| TMX3 | 1820187 | -0,21 | 0,06 | 0,37 | ENSG00000166479 | 0,56 | 6,03E-05 | 4,18E-03 | 0,27 | 0,27 | 0,54 |
| CCDC102B | 2630639 | -0,11 | 0,32 | 0,73 | ENSG00000150636 | 0,25 | 0,10 | 0,31 | 0,64 | 3,37E-03 | 0,04 |
| RP11-106E15.1 | - | - | - | - | ENSG00000263637 | -0,04 | 0,78 | 0,92 | -0,04 | 0,86 | 1,00 |
| RNU6-39P | - | - | - | - | ENSG00000207072 | 0,12 | 0,45 | 0,69 | -0,02 | 0,95 | 1,00 |
| SDHCP1 | - | - | - | - | ENSG00000264444 | 0,12 | 0,41 | 0,66 | -0,26 | 0,27 | 0,54 |
| RP11-861L17.3 | - | - | - | - | ENSG00000264472 | 0,17 | 0,25 | 0,51 | 0,24 | 0,33 | 0,62 |
| RP11-861L17.2 | - | - | - | - | ENSG00000264236 | 0,09 | 0,54 | 0,76 | -0,31 | 0,20 | 0,46 |
| RP11-674P19.2 | - | - | - | - | ENSG00000264705 | 0,21 | 0,17 | 0,42 | -0,15 | 0,54 | 0,76 |
| DOK6 | 7200341 | 0,14 | 0,21 | 0,63 | ENSG00000206052 | 0,23 | 0,12 | 0,34 | 0,87 | 1,03E-06 | 1,48E-04 |
| RP11-465I4.3 | - | - | - | - | ENSG00000264845 | 0,19 | 0,20 | 0,45 | 0,02 | 0,95 | 1,00 |
| RP11-465I4.2 | - | - | - | - | ENSG00000265643 | 0,02 | 0,89 | 0,99 | 0,04 | 0,88 | 1,00 |
| RP11-543H23.2 | - | - | - | - | ENSG00000266840 | -0,07 | 0,64 | 0,84 | -0,11 | 0,67 | 0,88 |
| CD226 | 3940754 | -0,10 | 0,39 | 0,78 | ENSG00000150637 | 0,22 | 0,14 | 0,38 | -0,41 | 0,08 | 0,36 |
| RTTN | 6400632 | -0,19 | 0,09 | 0,45 | ENSG00000176225 | 0,28 | 0,06 | 0,23 | -0,23 | 0,33 | 0,62 |
| SOCS6 | 4880475 | 0,14 | 0,23 | 0,64 | ENSG00000170677 | 0,61 | 7,40E-06 | 3,18E-03 | 0,03 | 0,89 | 1,00 |
| RP11-4104.1 | - | - | - | - | ENSG00000266258 | 0,67 | 3,64E-07 | 3,18E-03 | 0,78 | 7,79E-05 | 2,81E-03 |
| AC013558.1 | - | - | - | - | ENSG00000264059 | 0,12 | 0,41 | 0,66 | 0,04 | 0,86 | 1,00 |
| RP11-4104.2 | - | - | - | - | ENSG00000266278 | 0,32 | 0,03 | 0,15 | -0,49 | 0,03 | 0,20 |

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|---------------|---------|-------|------|------|-----------------|-------|------|------|-------|------|------|
| RP11-41O4.3 | - | - | - | - | ENSG00000265698 | 0,04 | 0,78 | 0,93 | -0,28 | 0,24 | 0,50 |
| RPS2P6 | - | - | - | - | ENSG00000214255 | 0,31 | 0,04 | 0,17 | -0,30 | 0,22 | 0,49 |
| RN7SL795P | - | - | - | - | ENSG00000239748 | 0,06 | 0,71 | 0,89 | NA | NA | NA |
| GTSCR1 | 4260372 | -0,04 | 0,70 | 0,92 | ENSG00000263417 | 0,16 | 0,28 | 0,55 | -0,15 | 0,54 | 0,76 |
| RP11-384E22.1 | - | - | - | - | ENSG00000265781 | 0,13 | 0,39 | 0,65 | -0,31 | 0,20 | 0,46 |
| RP11-529J17.1 | - | - | - | - | ENSG00000265639 | 0,21 | 0,15 | 0,39 | NA | NA | NA |
| RP11-47G4.2 | - | - | - | - | ENSG00000265484 | 0,04 | 0,80 | 0,94 | -0,15 | 0,54 | 0,76 |
| RP11-47G4.1 | - | - | - | - | ENSG00000263733 | 0,22 | 0,14 | 0,37 | -0,44 | 0,06 | 0,30 |
| RP11-510D19.1 | - | - | - | - | ENSG00000260676 | -0,02 | 0,90 | 1,00 | -0,31 | 0,20 | 0,46 |
| RP11-752P2.1 | - | - | - | - | ENSG00000264388 | 0,09 | 0,56 | 0,78 | -0,31 | 0,19 | 0,46 |
| RP11-752P2.2 | - | - | - | - | ENSG00000265946 | 0,13 | 0,37 | 0,63 | -0,15 | 0,54 | 0,76 |
| RP11-723G8.2 | - | - | - | - | ENSG00000265352 | 0,23 | 0,13 | 0,36 | NA | NA | NA |
| RP11-723G8.1 | - | - | - | - | ENSG00000260457 | 0,13 | 0,39 | 0,65 | -0,15 | 0,54 | 0,76 |
| RP11-736G13.1 | - | - | - | - | ENSG00000265995 | 0,21 | 0,16 | 0,40 | -0,15 | 0,54 | 0,76 |
| CBLN2 | 670019 | -0,02 | 0,86 | 0,97 | ENSG00000141668 | 0,29 | 0,05 | 0,21 | -0,44 | 0,06 | 0,30 |
| HNRNPA1P11 | - | - | - | - | ENSG00000264315 | -0,01 | 0,96 | 1,00 | -0,44 | 0,06 | 0,30 |

S4. Lnc18q22.2 and control gene expression detected by qRT-PCR in plasma of four healthy volunteers and four NASH patients

| | <u>Lnc18q22.2</u> | <u>MALAT1</u> | <u>Neat</u> |
|-----------|-------------------|---------------|-------------|
| Control 1 | - | + | + |
| Control 2 | - | + | + |
| Control 3 | - | + | + |
| Control 4 | - | + | - |
| NASH 1 | - | + | + |
| NASH 2 | - | + | + |
| NASH 3 | - | + | + |

| | | | |
|--------|---|---|---|
| NASH 4 | - | + | + |
|--------|---|---|---|

S5. Co-expressed genes with Inc18q22.2 from microarray data. 1095 probes corresponding to 984 unique genes were positively associated with Inc18q22.2 and 1040 probes corresponding to 1001 unique genes were negatively associated with Inc18q22.2.

| Array Address probe ID | Gene name | r.value | p.value | FDR |
|------------------------|------------------|---------|----------|----------|
| 6580270 | <i>LOC646723</i> | 0,78 | 1,25E-17 | 3,06E-13 |
| 3400672 | <i>SERPINB8</i> | 0,77 | 3,19E-17 | 5,18E-13 |
| 4780615 | <i>ANXA2</i> | 0,73 | 1,16E-14 | 1,42E-10 |
| 1430239 | <i>UBC</i> | 0,72 | 3,09E-14 | 3,01E-10 |
| 770730 | <i>ANXA2</i> | 0,70 | 1,68E-13 | 1,17E-09 |
| 4230201 | <i>CDKN1A</i> | 0,70 | 1,91E-13 | 1,17E-09 |
| 3060300 | <i>UBC</i> | 0,70 | 1,93E-13 | 1,17E-09 |
| 6400647 | <i>EHD4</i> | 0,69 | 9,69E-13 | 5,25E-09 |
| 6510377 | <i>TNFRSF12A</i> | 0,69 | 1,12E-12 | 5,45E-09 |
| 1770376 | <i>SERPINB8</i> | 0,68 | 1,57E-12 | 6,95E-09 |
| 20044 | <i>LOC644743</i> | 0,68 | 1,86E-12 | 7,54E-09 |
| 2340180 | <i>TAGLN2</i> | 0,68 | 2,12E-12 | 7,96E-09 |
| 4210524 | <i>RND3</i> | 0,67 | 4,58E-12 | 1,54E-08 |
| 4150048 | <i>FABP5</i> | 0,67 | 4,73E-12 | 1,54E-08 |
| 6110025 | <i>FHL2</i> | 0,67 | 6,56E-12 | 2,00E-08 |
| 6280672 | <i>TMEM49</i> | 0,66 | 1,08E-11 | 2,94E-08 |
| 5900725 | <i>PHLDA1</i> | 0,66 | 1,58E-11 | 3,76E-08 |
| 2490017 | <i>ZC3H12A</i> | 0,66 | 1,59E-11 | 3,76E-08 |
| 3130301 | <i>PIM1</i> | 0,66 | 1,62E-11 | 3,76E-08 |
| 4180343 | <i>YWHAZ</i> | 0,66 | 1,75E-11 | 3,88E-08 |
| 4220246 | <i>CCL20</i> | 0,65 | 2,67E-11 | 5,35E-08 |
| 3520328 | <i>ANXA2</i> | 0,65 | 2,74E-11 | 5,35E-08 |
| 5890468 | <i>C14ORF43</i> | 0,65 | 3,09E-11 | 5,79E-08 |
| 7150475 | <i>WDR1</i> | 0,65 | 3,31E-11 | 5,97E-08 |
| 6660398 | <i>FCN1</i> | 0,65 | 3,86E-11 | 6,72E-08 |
| 7210373 | <i>PSMD12</i> | 0,64 | 9,93E-11 | 1,67E-07 |
| 3180672 | <i>LITAF</i> | 0,64 | 1,13E-10 | 1,78E-07 |

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|---------|-----------------|------|----------|----------|
| 1440736 | <i>LDLR</i> | 0,64 | 1,24E-10 | 1,78E-07 |
| 3180528 | <i>MMP9</i> | 0,64 | 1,25E-10 | 1,78E-07 |
| 2190452 | <i>PIM3</i> | 0,64 | 1,27E-10 | 1,78E-07 |
| 130324 | <i>TMPRSS2</i> | 0,64 | 1,28E-10 | 1,78E-07 |
| 4070736 | <i>TAGLN2</i> | 0,63 | 1,79E-10 | 2,38E-07 |
| 7320594 | <i>ZYX</i> | 0,63 | 1,81E-10 | 2,38E-07 |
| 5490470 | <i>MX2</i> | 0,63 | 2,04E-10 | 2,62E-07 |
| 1030270 | <i>FPR1</i> | 0,63 | 2,10E-10 | 2,63E-07 |
| 730440 | <i>RELB</i> | 0,63 | 2,37E-10 | 2,88E-07 |
| 2570291 | <i>IFNGR2</i> | 0,63 | 2,64E-10 | 3,09E-07 |
| 4150520 | <i>RIPK2</i> | 0,63 | 2,66E-10 | 3,09E-07 |
| 6420731 | <i>SLC20A1</i> | 0,63 | 2,98E-10 | 3,38E-07 |
| 780309 | <i>CIDEA</i> | 0,63 | 3,26E-10 | 3,61E-07 |
| 2490240 | <i>PTPRE</i> | 0,62 | 3,55E-10 | 3,85E-07 |
| 150095 | <i>TP53BP2</i> | 0,62 | 3,97E-10 | 4,20E-07 |
| 3930343 | <i>ALOX5AP</i> | 0,62 | 4,14E-10 | 4,30E-07 |
| 3370056 | <i>KRT8</i> | 0,62 | 4,41E-10 | 4,48E-07 |
| 770408 | <i>SERPINE1</i> | 0,62 | 4,61E-10 | 4,59E-07 |
| 4290072 | <i>SERTAD1</i> | 0,62 | 5,60E-10 | 5,46E-07 |
| 7380100 | <i>MCL1</i> | 0,62 | 6,87E-10 | 6,32E-07 |
| 7570358 | <i>NPC1</i> | 0,61 | 9,89E-10 | 8,93E-07 |
| 4640376 | <i>MRLC2</i> | 0,61 | 1,22E-09 | 1,08E-06 |
| 7610138 | <i>DDX5</i> | 0,61 | 1,34E-09 | 1,17E-06 |
| 460204 | <i>ADFP</i> | 0,61 | 1,44E-09 | 1,23E-06 |
| 3310424 | <i>ACTG1</i> | 0,61 | 1,72E-09 | 1,43E-06 |
| 4920228 | <i>FFAR2</i> | 0,60 | 1,75E-09 | 1,43E-06 |
| 160242 | <i>C13ORF15</i> | 0,60 | 1,76E-09 | 1,43E-06 |
| 2970730 | <i>MYADM</i> | 0,60 | 1,91E-09 | 1,50E-06 |
| 1430138 | <i>MAFF</i> | 0,60 | 1,91E-09 | 1,50E-06 |
| 6220671 | <i>PLAUR</i> | 0,60 | 2,01E-09 | 1,55E-06 |
| 5670465 | <i>ADM</i> | 0,60 | 2,04E-09 | 1,55E-06 |
| 4150477 | <i>LOXL4</i> | 0,60 | 2,34E-09 | 1,73E-06 |

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|---------|-----------------|------|----------|----------|
| 3940528 | <i>PPP2CB</i> | 0,60 | 3,02E-09 | 2,20E-06 |
| 5810440 | <i>HNRNPAB</i> | 0,60 | 3,15E-09 | 2,26E-06 |
| 2630768 | <i>LMNA</i> | 0,60 | 3,34E-09 | 2,28E-06 |
| 1340743 | <i>IL8</i> | 0,60 | 3,35E-09 | 2,28E-06 |
| 6580672 | <i>RBBP8</i> | 0,60 | 3,39E-09 | 2,28E-06 |
| 7050484 | <i>ZYX</i> | 0,60 | 3,42E-09 | 2,28E-06 |
| 1990577 | <i>GCLM</i> | 0,60 | 3,60E-09 | 2,37E-06 |
| 5820133 | <i>C1ORF108</i> | 0,59 | 3,82E-09 | 2,49E-06 |
| 630091 | <i>NCOA7</i> | 0,59 | 4,02E-09 | 2,58E-06 |
| 2340673 | <i>PTPRE</i> | 0,59 | 4,25E-09 | 2,69E-06 |
| 5860470 | <i>TRIM15</i> | 0,59 | 4,94E-09 | 3,06E-06 |
| 7050138 | <i>RQCD1</i> | 0,59 | 4,96E-09 | 3,06E-06 |
| 4490500 | <i>ITGAX</i> | 0,59 | 5,04E-09 | 3,07E-06 |
| 5550431 | <i>MMD</i> | 0,59 | 5,19E-09 | 3,13E-06 |
| 3780717 | <i>SRXN1</i> | 0,59 | 5,45E-09 | 3,22E-06 |
| 730576 | <i>SPRY4</i> | 0,59 | 5,48E-09 | 3,22E-06 |
| 840685 | <i>IL1B</i> | 0,59 | 5,73E-09 | 3,33E-06 |
| 4220605 | <i>ETS2</i> | 0,59 | 6,55E-09 | 3,64E-06 |
| 7650358 | <i>TGFBI</i> | 0,59 | 6,56E-09 | 3,64E-06 |
| 2750719 | <i>DDX21</i> | 0,59 | 6,58E-09 | 3,64E-06 |
| 1450670 | <i>EIF4A1</i> | 0,59 | 6,76E-09 | 3,70E-06 |
| 4810653 | <i>YWHAH</i> | 0,59 | 6,93E-09 | 3,75E-06 |
| 5960132 | <i>NOLC1</i> | 0,59 | 7,34E-09 | 3,93E-06 |
| 7550484 | <i>SRGN</i> | 0,58 | 8,65E-09 | 4,54E-06 |
| 6380021 | <i>COQ10B</i> | 0,58 | 9,44E-09 | 4,89E-06 |
| 2640471 | <i>RNF24</i> | 0,58 | 1,03E-08 | 5,24E-06 |
| 4730392 | <i>MRCL3</i> | 0,58 | 1,03E-08 | 5,24E-06 |
| 1400446 | <i>ADFP</i> | 0,58 | 1,05E-08 | 5,28E-06 |
| 830278 | <i>C9ORF19</i> | 0,58 | 1,08E-08 | 5,39E-06 |
| 6350634 | <i>DYNLT1</i> | 0,58 | 1,15E-08 | 5,61E-06 |
| 6660475 | <i>FGR</i> | 0,58 | 1,16E-08 | 5,61E-06 |
| 5050519 | <i>RHOQ</i> | 0,58 | 1,16E-08 | 5,61E-06 |

Hepatology

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|---------|------------------|------|----------|----------|
| 2710142 | <i>IER5L</i> | 0,58 | 1,23E-08 | 5,89E-06 |
| 1190367 | <i>IER3</i> | 0,58 | 1,41E-08 | 6,67E-06 |
| 1940253 | <i>CRY1</i> | 0,58 | 1,42E-08 | 6,67E-06 |
| 540671 | <i>LILRB2</i> | 0,57 | 1,71E-08 | 7,93E-06 |
| 3940270 | <i>LILRA5</i> | 0,57 | 1,92E-08 | 8,72E-06 |
| 5270730 | <i>ACTB</i> | 0,57 | 1,93E-08 | 8,72E-06 |
| 6350189 | <i>MGC4677</i> | 0,57 | 2,08E-08 | 9,31E-06 |
| 2470017 | <i>LILRB3</i> | 0,57 | 2,23E-08 | 9,91E-06 |
| 4010753 | <i>RHOG</i> | 0,57 | 2,67E-08 | 1,16E-05 |
| 5420095 | <i>MYC</i> | 0,57 | 2,69E-08 | 1,16E-05 |
| 20022 | <i>SRF</i> | 0,57 | 3,12E-08 | 1,29E-05 |
| 1030463 | <i>PROK2</i> | 0,57 | 3,13E-08 | 1,29E-05 |
| 6510279 | <i>DPH3</i> | 0,57 | 3,21E-08 | 1,31E-05 |
| 7320551 | <i>LYN</i> | 0,56 | 3,72E-08 | 1,49E-05 |
| 50286 | <i>EEPD1</i> | 0,56 | 4,23E-08 | 1,68E-05 |
| 5290270 | <i>S100A4</i> | 0,56 | 4,32E-08 | 1,70E-05 |
| 20129 | <i>CD52</i> | 0,56 | 4,42E-08 | 1,73E-05 |
| 1070451 | <i>ANXA5</i> | 0,56 | 4,75E-08 | 1,82E-05 |
| 520040 | <i>C1ORF108</i> | 0,56 | 5,01E-08 | 1,91E-05 |
| 3610035 | <i>CD58</i> | 0,56 | 5,27E-08 | 1,99E-05 |
| 2140136 | <i>EMR2</i> | 0,56 | 5,31E-08 | 1,99E-05 |
| 6020300 | <i>IL1RL1</i> | 0,56 | 5,59E-08 | 2,08E-05 |
| 6330132 | <i>ISG20</i> | 0,56 | 6,13E-08 | 2,25E-05 |
| 6510332 | <i>EPHA2</i> | 0,55 | 6,72E-08 | 2,41E-05 |
| 6370201 | <i>C14ORF43</i> | 0,55 | 6,87E-08 | 2,44E-05 |
| 1570092 | <i>TUBB6</i> | 0,55 | 6,94E-08 | 2,44E-05 |
| 7160010 | <i>RNF19A</i> | 0,55 | 6,96E-08 | 2,44E-05 |
| 6060326 | <i>ZNF295</i> | 0,55 | 7,29E-08 | 2,54E-05 |
| 3370041 | <i>VNN3</i> | 0,55 | 7,63E-08 | 2,60E-05 |
| 60341 | <i>LOC653171</i> | 0,55 | 7,65E-08 | 2,60E-05 |
| 4850343 | <i>LOC647954</i> | 0,55 | 7,74E-08 | 2,60E-05 |
| 620280 | <i>JUND</i> | 0,55 | 7,78E-08 | 2,60E-05 |

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|---------|------------------|------|----------|----------|
| 730528 | <i>PLAUR</i> | 0,55 | 7,79E-08 | 2,60E-05 |
| 2060047 | <i>B4GALT5</i> | 0,55 | 8,01E-08 | 2,66E-05 |
| 4920053 | <i>BTG3</i> | 0,55 | 8,66E-08 | 2,82E-05 |
| 2450639 | <i>TSC22D1</i> | 0,55 | 8,93E-08 | 2,87E-05 |
| 7100215 | <i>TSC22D2</i> | 0,55 | 8,95E-08 | 2,87E-05 |
| 1410408 | <i>ARID5B</i> | 0,55 | 9,06E-08 | 2,87E-05 |
| 2640408 | <i>RAB6IP1</i> | 0,55 | 9,30E-08 | 2,93E-05 |
| 4780398 | <i>NXT1</i> | 0,55 | 9,52E-08 | 2,97E-05 |
| 3130576 | <i>CHIC2</i> | 0,55 | 9,73E-08 | 3,00E-05 |
| 3130220 | <i>TMEM158</i> | 0,55 | 1,00E-07 | 3,05E-05 |
| 1660528 | <i>CKLF</i> | 0,55 | 1,05E-07 | 3,18E-05 |
| 6250468 | <i>DUSP6</i> | 0,55 | 1,07E-07 | 3,23E-05 |
| 840356 | <i>NUAK2</i> | 0,55 | 1,09E-07 | 3,26E-05 |
| 4010433 | <i>LOC650832</i> | 0,54 | 1,22E-07 | 3,62E-05 |
| 2030132 | <i>LOC653506</i> | 0,54 | 1,23E-07 | 3,64E-05 |
| 3830131 | <i>TUBA1C</i> | 0,54 | 1,24E-07 | 3,64E-05 |
| 6250064 | <i>IRF1</i> | 0,54 | 1,25E-07 | 3,65E-05 |
| 7160100 | <i>PPRC1</i> | 0,54 | 1,26E-07 | 3,66E-05 |
| 6940358 | <i>SELL</i> | 0,54 | 1,27E-07 | 3,66E-05 |
| 5860093 | <i>NLF2</i> | 0,54 | 1,28E-07 | 3,66E-05 |
| 540681 | <i>S100A10</i> | 0,54 | 1,29E-07 | 3,67E-05 |
| 4480288 | <i>ISG20L1</i> | 0,54 | 1,29E-07 | 3,67E-05 |
| 3870484 | <i>LUZP1</i> | 0,54 | 1,32E-07 | 3,71E-05 |
| 7100382 | <i>SPSB1</i> | 0,54 | 1,35E-07 | 3,75E-05 |
| 2340215 | <i>KLF6</i> | 0,54 | 1,45E-07 | 3,95E-05 |
| 1580465 | <i>AMICA1</i> | 0,54 | 1,46E-07 | 3,95E-05 |
| 3420373 | <i>SOD2</i> | 0,54 | 1,46E-07 | 3,95E-05 |
| 2710735 | <i>RASD1</i> | 0,54 | 1,46E-07 | 3,95E-05 |
| 730332 | <i>MSN</i> | 0,54 | 1,47E-07 | 3,95E-05 |
| 6450092 | <i>C5AR1</i> | 0,54 | 1,48E-07 | 3,96E-05 |
| 2140735 | <i>RALGDS</i> | 0,54 | 1,50E-07 | 3,99E-05 |
| 3290639 | <i>RAB7B</i> | 0,54 | 1,63E-07 | 4,27E-05 |

Hepatology

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|---------|------------------|------|----------|----------|
| 7400368 | <i>RUNX1</i> | 0,54 | 1,64E-07 | 4,27E-05 |
| 7560288 | <i>DCUN1D3</i> | 0,54 | 1,71E-07 | 4,44E-05 |
| 4730176 | <i>WNT11</i> | 0,54 | 1,72E-07 | 4,44E-05 |
| 2470358 | <i>IFNGR1</i> | 0,54 | 1,75E-07 | 4,50E-05 |
| 2100484 | <i>STAT3</i> | 0,54 | 1,80E-07 | 4,59E-05 |
| 990288 | <i>FHL2</i> | 0,54 | 1,89E-07 | 4,75E-05 |
| 1570553 | <i>IL8</i> | 0,54 | 1,92E-07 | 4,81E-05 |
| 6270114 | <i>CSF3R</i> | 0,54 | 1,99E-07 | 4,92E-05 |
| 2470689 | <i>SPHK1</i> | 0,54 | 2,00E-07 | 4,92E-05 |
| 5390220 | <i>S100A9</i> | 0,54 | 2,03E-07 | 4,98E-05 |
| 3710544 | <i>EIF1</i> | 0,54 | 2,06E-07 | 5,02E-05 |
| 1340075 | <i>BAG3</i> | 0,54 | 2,11E-07 | 5,11E-05 |
| 4150689 | <i>METRNL</i> | 0,54 | 2,18E-07 | 5,25E-05 |
| 5720184 | <i>KLF10</i> | 0,53 | 2,26E-07 | 5,43E-05 |
| 4050270 | <i>LOC652481</i> | 0,53 | 2,28E-07 | 5,45E-05 |
| 3870619 | <i>AMD1</i> | 0,53 | 2,31E-07 | 5,49E-05 |
| 1030333 | <i>CCL2</i> | 0,53 | 2,37E-07 | 5,61E-05 |
| 5810685 | <i>THBS1</i> | 0,53 | 2,40E-07 | 5,61E-05 |
| 4210113 | <i>CMTM2</i> | 0,53 | 2,59E-07 | 5,99E-05 |
| 1780273 | <i>ALOX5</i> | 0,53 | 2,62E-07 | 6,02E-05 |
| 1430424 | <i>RFFL</i> | 0,53 | 2,63E-07 | 6,02E-05 |
| 3140369 | <i>TGIF1</i> | 0,53 | 2,80E-07 | 6,39E-05 |
| 2900348 | <i>ZFP36</i> | 0,53 | 2,94E-07 | 6,60E-05 |
| 2630577 | <i>CAV2</i> | 0,53 | 2,96E-07 | 6,60E-05 |
| 6960215 | <i>PITPNM1</i> | 0,53 | 2,96E-07 | 6,60E-05 |
| 3890326 | <i>SOD2</i> | 0,53 | 2,96E-07 | 6,60E-05 |
| 5960358 | <i>PELO</i> | 0,53 | 3,09E-07 | 6,82E-05 |
| 7550500 | <i>JUNB</i> | 0,53 | 3,12E-07 | 6,85E-05 |
| 2140288 | <i>FLJ22662</i> | 0,53 | 3,13E-07 | 6,85E-05 |
| 380050 | <i>RHBDF2</i> | 0,53 | 3,16E-07 | 6,89E-05 |
| 650112 | <i>LST1</i> | 0,53 | 3,20E-07 | 6,92E-05 |
| 70592 | <i>VCL</i> | 0,53 | 3,22E-07 | 6,92E-05 |

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|---------|------------------|------|----------|----------|
| 2970332 | <i>WEE1</i> | 0,53 | 3,24E-07 | 6,93E-05 |
| 6960440 | <i>UBE2A</i> | 0,53 | 3,30E-07 | 7,04E-05 |
| 4490520 | <i>EBI2</i> | 0,53 | 3,56E-07 | 7,54E-05 |
| 1710189 | <i>RHBDF1</i> | 0,53 | 3,58E-07 | 7,56E-05 |
| 4830504 | <i>PGM2</i> | 0,53 | 3,66E-07 | 7,68E-05 |
| 3930750 | <i>IRAK2</i> | 0,53 | 3,93E-07 | 8,18E-05 |
| 2190470 | <i>KLF10</i> | 0,53 | 3,95E-07 | 8,20E-05 |
| 6620136 | <i>MYH9</i> | 0,53 | 3,99E-07 | 8,23E-05 |
| 7400626 | <i>NFKB1</i> | 0,53 | 4,11E-07 | 8,42E-05 |
| 5690202 | <i>C6ORF166</i> | 0,53 | 4,11E-07 | 8,42E-05 |
| 6900209 | <i>ADAM19</i> | 0,52 | 4,15E-07 | 8,46E-05 |
| 4180315 | <i>CHMP4B</i> | 0,52 | 4,28E-07 | 8,69E-05 |
| 4640470 | <i>SGMS2</i> | 0,52 | 4,67E-07 | 9,36E-05 |
| 5080021 | <i>BIRC3</i> | 0,52 | 4,74E-07 | 9,47E-05 |
| 780465 | <i>SLC11A1</i> | 0,52 | 4,77E-07 | 9,50E-05 |
| 1710541 | <i>TMEM71</i> | 0,52 | 5,26E-07 | 1,04E-04 |
| 380202 | <i>NUAK2</i> | 0,52 | 5,38E-07 | 1,06E-04 |
| 2650035 | <i>PADI4</i> | 0,52 | 5,41E-07 | 1,06E-04 |
| 4040576 | <i>IL6</i> | 0,52 | 5,54E-07 | 1,08E-04 |
| 4070017 | <i>ODC1</i> | 0,52 | 5,63E-07 | 1,08E-04 |
| 7560041 | <i>AXUD1</i> | 0,52 | 5,64E-07 | 1,08E-04 |
| 2850551 | <i>RCAN1</i> | 0,52 | 5,65E-07 | 1,08E-04 |
| 620360 | <i>CAV2</i> | 0,52 | 5,77E-07 | 1,10E-04 |
| 610025 | <i>LOC400578</i> | 0,52 | 5,82E-07 | 1,11E-04 |
| 2650193 | <i>SDC4</i> | 0,52 | 6,27E-07 | 1,18E-04 |
| 6100615 | <i>CD93</i> | 0,52 | 6,33E-07 | 1,19E-04 |
| 1240386 | <i>KLHL21</i> | 0,52 | 6,35E-07 | 1,19E-04 |
| 5390095 | <i>RASSF2</i> | 0,52 | 6,47E-07 | 1,21E-04 |
| 4890324 | <i>HS.538259</i> | 0,52 | 6,82E-07 | 1,26E-04 |
| 5290161 | <i>C17ORF91</i> | 0,52 | 7,18E-07 | 1,33E-04 |
| 3060022 | <i>PHF13</i> | 0,52 | 7,30E-07 | 1,34E-04 |
| 1510424 | <i>S100P</i> | 0,51 | 7,60E-07 | 1,38E-04 |

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|---------|-----------------|------|----------|----------|
| 5290397 | <i>CLCF1</i> | 0,51 | 7,66E-07 | 1,38E-04 |
| 3890138 | <i>MTMR11</i> | 0,51 | 7,70E-07 | 1,38E-04 |
| 4050452 | <i>PPA1</i> | 0,51 | 7,94E-07 | 1,42E-04 |
| 6660630 | <i>TP53INP1</i> | 0,51 | 8,22E-07 | 1,46E-04 |
| 1510300 | <i>ELF3</i> | 0,51 | 8,33E-07 | 1,48E-04 |
| 2060577 | <i>TRIM15</i> | 0,51 | 8,60E-07 | 1,52E-04 |
| 6280332 | <i>CXCL16</i> | 0,51 | 8,64E-07 | 1,52E-04 |
| 4810020 | <i>PLEK</i> | 0,51 | 9,56E-07 | 1,65E-04 |
| 6590341 | <i>RAB31</i> | 0,51 | 1,02E-06 | 1,75E-04 |
| 2640735 | <i>BHLHB2</i> | 0,51 | 1,05E-06 | 1,80E-04 |
| 3780019 | <i>HIGD1A</i> | 0,51 | 1,06E-06 | 1,80E-04 |
| 7650433 | <i>TIMP1</i> | 0,51 | 1,08E-06 | 1,84E-04 |
| 4010133 | <i>VNN3</i> | 0,51 | 1,11E-06 | 1,87E-04 |
| 4040097 | <i>KLF6</i> | 0,51 | 1,11E-06 | 1,87E-04 |
| 290475 | <i>CTNNAL1</i> | 0,51 | 1,12E-06 | 1,88E-04 |
| 1710753 | <i>ARL5B</i> | 0,51 | 1,18E-06 | 1,97E-04 |
| 6250615 | <i>PGLYRP1</i> | 0,51 | 1,21E-06 | 2,01E-04 |
| 650458 | <i>FILIP1L</i> | 0,51 | 1,22E-06 | 2,02E-04 |
| 3170017 | <i>MAP2K3</i> | 0,51 | 1,27E-06 | 2,07E-04 |
| 7570673 | <i>UPP1</i> | 0,51 | 1,28E-06 | 2,08E-04 |
| 5360392 | <i>TP53INP2</i> | 0,51 | 1,29E-06 | 2,08E-04 |
| 3360112 | <i>TMEM2</i> | 0,50 | 1,34E-06 | 2,17E-04 |
| 7400286 | <i>HMGA1</i> | 0,50 | 1,35E-06 | 2,18E-04 |
| 6200128 | <i>ROD1</i> | 0,50 | 1,38E-06 | 2,21E-04 |
| 7510309 | <i>FRMD6</i> | 0,50 | 1,43E-06 | 2,28E-04 |
| 6290270 | <i>MNDA</i> | 0,50 | 1,44E-06 | 2,28E-04 |
| 4210465 | <i>CD86</i> | 0,50 | 1,55E-06 | 2,43E-04 |
| 7380706 | <i>NINJ1</i> | 0,50 | 1,56E-06 | 2,44E-04 |
| 6760546 | <i>TIPARP</i> | 0,50 | 1,59E-06 | 2,47E-04 |
| 5090671 | <i>GDF15</i> | 0,50 | 1,72E-06 | 2,65E-04 |
| 6280482 | <i>NIP7</i> | 0,50 | 1,73E-06 | 2,65E-04 |
| 940291 | <i>MIDN</i> | 0,50 | 1,74E-06 | 2,66E-04 |

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| 5310754 | <i>VNN1</i> | 0,50 | 1,78E-06 | 2,71E-04 |
| 6960630 | <i>CD97</i> | 0,50 | 1,84E-06 | 2,79E-04 |
| 4010100 | <i>HS.570988</i> | 0,50 | 1,88E-06 | 2,83E-04 |
| 6650176 | <i>TRMT11</i> | 0,50 | 1,88E-06 | 2,83E-04 |
| 3060523 | <i>NAMPT</i> | 0,50 | 1,89E-06 | 2,84E-04 |
| 4810520 | <i>TRIB1</i> | 0,50 | 2,00E-06 | 2,98E-04 |
| 6560091 | <i>TGFBR2</i> | 0,50 | 2,00E-06 | 2,98E-04 |
| 6200168 | <i>PIM2</i> | 0,50 | 2,04E-06 | 3,03E-04 |
| 3930605 | <i>CYR61</i> | 0,50 | 2,06E-06 | 3,05E-04 |
| 1030259 | <i>HPS5</i> | 0,50 | 2,19E-06 | 3,19E-04 |
| 4810128 | <i>PHLDA2</i> | 0,50 | 2,21E-06 | 3,21E-04 |
| 5870202 | <i>FBXO33</i> | 0,50 | 2,26E-06 | 3,24E-04 |
| 4850095 | <i>PNRC1</i> | 0,49 | 2,28E-06 | 3,27E-04 |
| 4230735 | <i>FAM129A</i> | 0,49 | 2,30E-06 | 3,29E-04 |
| 50095 | <i>METRNL</i> | 0,49 | 2,31E-06 | 3,30E-04 |
| 2360719 | <i>IRAK3</i> | 0,49 | 2,33E-06 | 3,31E-04 |
| 670673 | <i>BCL2L1</i> | 0,49 | 2,37E-06 | 3,36E-04 |
| 2690239 | <i>VNN2</i> | 0,49 | 2,43E-06 | 3,41E-04 |
| 360110 | <i>KLF6</i> | 0,49 | 2,58E-06 | 3,60E-04 |
| 4250538 | <i>STAT3</i> | 0,49 | 2,68E-06 | 3,73E-04 |
| 7160348 | <i>MAPK6</i> | 0,49 | 2,76E-06 | 3,82E-04 |
| 7510132 | <i>OLR1</i> | 0,49 | 2,77E-06 | 3,82E-04 |
| 5860138 | <i>RIPK4</i> | 0,49 | 2,81E-06 | 3,84E-04 |
| 1990300 | <i>SOCS1</i> | 0,49 | 2,82E-06 | 3,84E-04 |
| 5900735 | <i>ANXA11</i> | 0,49 | 3,03E-06 | 4,09E-04 |
| 270601 | <i>HIAT1</i> | 0,49 | 3,08E-06 | 4,13E-04 |
| 5820601 | <i>CCND1</i> | 0,49 | 3,16E-06 | 4,23E-04 |
| 3450092 | <i>PELI1</i> | 0,49 | 3,25E-06 | 4,33E-04 |
| 7510537 | <i>SCO2</i> | 0,49 | 3,35E-06 | 4,45E-04 |
| 460484 | <i>CCRN4L</i> | 0,49 | 3,38E-06 | 4,48E-04 |
| 3390438 | <i>PLA2G7</i> | 0,49 | 3,43E-06 | 4,52E-04 |
| 2000424 | <i>HS.569566</i> | 0,49 | 3,44E-06 | 4,52E-04 |

Hepatology

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| 1110338 | <i>MYL6</i> | 0,49 | 3,46E-06 | 4,53E-04 |
| 1690465 | <i>LOC650369</i> | 0,49 | 3,55E-06 | 4,62E-04 |
| 1230639 | <i>TRAPPC4</i> | 0,49 | 3,61E-06 | 4,67E-04 |
| 2490066 | <i>CD2BP2</i> | 0,49 | 3,68E-06 | 4,72E-04 |
| 2490754 | <i>MAP1LC3B</i> | 0,49 | 3,69E-06 | 4,72E-04 |
| 1690184 | <i>RNF19A</i> | 0,48 | 3,92E-06 | 4,98E-04 |
| 5870307 | <i>LOC440359</i> | 0,48 | 4,02E-06 | 5,08E-04 |
| 4260414 | <i>H2AFY</i> | 0,48 | 4,07E-06 | 5,13E-04 |
| 3450201 | <i>C6ORF32</i> | 0,48 | 4,29E-06 | 5,35E-04 |
| 1990278 | <i>FCGR2A</i> | 0,48 | 4,29E-06 | 5,35E-04 |
| 2470601 | <i>IL1RN</i> | 0,48 | 4,30E-06 | 5,35E-04 |
| 2320220 | <i>FCAMR</i> | 0,48 | 4,31E-06 | 5,35E-04 |
| 5090750 | <i>FOXC1</i> | 0,48 | 4,46E-06 | 5,49E-04 |
| 7560037 | <i>KIAA1949</i> | 0,48 | 4,47E-06 | 5,49E-04 |
| 4880408 | <i>SEMA4D</i> | 0,48 | 4,53E-06 | 5,54E-04 |
| 3290398 | <i>SLC25A3</i> | 0,48 | 4,56E-06 | 5,56E-04 |
| 3450072 | <i>CLIC1</i> | 0,48 | 4,73E-06 | 5,75E-04 |
| 6580189 | <i>LOC387820</i> | 0,48 | 4,78E-06 | 5,80E-04 |
| 7100431 | <i>P2RY8</i> | 0,48 | 4,80E-06 | 5,81E-04 |
| 6620026 | <i>CD83</i> | 0,48 | 4,86E-06 | 5,86E-04 |
| 4490709 | <i>FILIP1L</i> | 0,48 | 4,93E-06 | 5,93E-04 |
| 3990458 | <i>S100A4</i> | 0,48 | 5,04E-06 | 6,05E-04 |
| 150762 | <i>OSCAR</i> | 0,48 | 5,08E-06 | 6,06E-04 |
| 2710064 | <i>LOC387763</i> | 0,48 | 5,08E-06 | 6,06E-04 |
| 6520215 | <i>ANXA1</i> | 0,48 | 5,16E-06 | 6,10E-04 |
| 3710504 | <i>LYZ</i> | 0,48 | 5,17E-06 | 6,10E-04 |
| 5910431 | <i>COL4A1</i> | 0,48 | 5,18E-06 | 6,10E-04 |
| 1070367 | <i>C19ORF59</i> | 0,48 | 5,23E-06 | 6,15E-04 |
| 7200156 | <i>ITGB2</i> | 0,48 | 5,41E-06 | 6,34E-04 |
| 3940435 | <i>EMP1</i> | 0,48 | 5,46E-06 | 6,38E-04 |
| 4900575 | <i>PTRH2</i> | 0,48 | 5,51E-06 | 6,41E-04 |
| 3890373 | <i>ITGB2</i> | 0,48 | 5,58E-06 | 6,48E-04 |

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| 1030008 | <i>TGFB3</i> | 0,48 | 5,82E-06 | 6,71E-04 |
| 5890706 | <i>SHB</i> | 0,48 | 6,09E-06 | 6,93E-04 |
| 6270437 | <i>FJX1</i> | 0,48 | 6,16E-06 | 7,00E-04 |
| 2850576 | <i>SEMA4A</i> | 0,48 | 6,28E-06 | 7,11E-04 |
| 5490719 | <i>FCAMR</i> | 0,48 | 6,41E-06 | 7,23E-04 |
| 5860075 | <i>CAMP</i> | 0,48 | 6,42E-06 | 7,23E-04 |
| 7570053 | <i>RND1</i> | 0,48 | 6,49E-06 | 7,29E-04 |
| 610750 | <i>MCL1</i> | 0,47 | 6,60E-06 | 7,40E-04 |
| 670086 | <i>MXD1</i> | 0,47 | 6,66E-06 | 7,43E-04 |
| 1010328 | <i>NEDD9</i> | 0,47 | 6,67E-06 | 7,43E-04 |
| 1010333 | <i>MSX1</i> | 0,47 | 6,72E-06 | 7,46E-04 |
| 6100482 | <i>ATP2B4</i> | 0,47 | 6,81E-06 | 7,54E-04 |
| 6560301 | <i>SH2B3</i> | 0,47 | 6,87E-06 | 7,59E-04 |
| 3120431 | <i>IMPDH1</i> | 0,47 | 6,93E-06 | 7,63E-04 |
| 4200196 | <i>TNFAIP8</i> | 0,47 | 6,93E-06 | 7,63E-04 |
| 5090619 | <i>STAT3</i> | 0,47 | 7,12E-06 | 7,80E-04 |
| 4390450 | <i>SGK</i> | 0,47 | 7,24E-06 | 7,91E-04 |
| 630315 | <i>DHRS9</i> | 0,47 | 7,31E-06 | 7,96E-04 |
| 4480504 | <i>ZNF828</i> | 0,47 | 7,34E-06 | 7,97E-04 |
| 4760521 | <i>HPS5</i> | 0,47 | 7,35E-06 | 7,97E-04 |
| 5960343 | <i>PRIC285</i> | 0,47 | 7,41E-06 | 7,99E-04 |
| 4830014 | <i>HS.250648</i> | 0,47 | 7,46E-06 | 8,03E-04 |
| 6060468 | <i>S100A8</i> | 0,47 | 7,57E-06 | 8,13E-04 |
| 2900068 | <i>VCL</i> | 0,47 | 7,64E-06 | 8,18E-04 |
| 3460070 | <i>SPP1</i> | 0,47 | 7,78E-06 | 8,32E-04 |
| 6020630 | <i>MMP25</i> | 0,47 | 8,03E-06 | 8,56E-04 |
| 5360537 | <i>ARHGAP30</i> | 0,47 | 8,25E-06 | 8,77E-04 |
| 3800168 | <i>SLC2A3</i> | 0,47 | 8,41E-06 | 8,92E-04 |
| 3400392 | <i>FPR2</i> | 0,47 | 8,57E-06 | 9,04E-04 |
| 4150278 | <i>DUSP14</i> | 0,47 | 8,91E-06 | 9,37E-04 |
| 4180079 | <i>CRISPLD2</i> | 0,47 | 8,92E-06 | 9,37E-04 |
| 3710148 | <i>DPM2</i> | 0,47 | 8,96E-06 | 9,40E-04 |

Hepatology

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| 5870301 | <i>KIAA0513</i> | 0,47 | 9,13E-06 | 9,55E-04 |
| 6590253 | <i>ALDOA</i> | 0,47 | 9,40E-06 | 9,73E-04 |
| 4260189 | <i>TGIF1</i> | 0,47 | 9,46E-06 | 9,77E-04 |
| 6560072 | <i>HS.184721</i> | 0,47 | 9,57E-06 | 9,86E-04 |
| 5560246 | <i>TPM1</i> | 0,47 | 9,58E-06 | 9,86E-04 |
| 1690630 | <i>FAM43A</i> | 0,47 | 9,84E-06 | 1,00E-03 |
| 3940133 | <i>FAM46A</i> | 0,47 | 9,86E-06 | 1,00E-03 |
| 110719 | <i>SLC16A3</i> | 0,47 | 9,88E-06 | 1,00E-03 |
| 6110242 | <i>CALCA</i> | 0,47 | 1,02E-05 | 1,03E-03 |
| 3800730 | <i>GNA13</i> | 0,47 | 1,03E-05 | 1,03E-03 |
| 6840035 | <i>GBP1</i> | 0,46 | 1,10E-05 | 1,10E-03 |
| 3460477 | <i>H3F3A</i> | 0,46 | 1,11E-05 | 1,11E-03 |
| 6510524 | <i>PSCD4</i> | 0,46 | 1,11E-05 | 1,11E-03 |
| 1400376 | <i>WWC3</i> | 0,46 | 1,12E-05 | 1,11E-03 |
| 510255 | <i>C7ORF43</i> | 0,46 | 1,13E-05 | 1,12E-03 |
| 7510386 | <i>IL1RN</i> | 0,46 | 1,13E-05 | 1,12E-03 |
| 1230048 | <i>ABCB1</i> | 0,46 | 1,19E-05 | 1,16E-03 |
| 1940100 | <i>TMEM184B</i> | 0,46 | 1,20E-05 | 1,17E-03 |
| 3610228 | <i>PEA15</i> | 0,46 | 1,21E-05 | 1,17E-03 |
| 1230224 | <i>DNAJB6</i> | 0,46 | 1,23E-05 | 1,18E-03 |
| 2630195 | <i>VAMP5</i> | 0,46 | 1,24E-05 | 1,19E-03 |
| 6660315 | <i>INPP1</i> | 0,46 | 1,27E-05 | 1,22E-03 |
| 4760537 | <i>C20ORF24</i> | 0,46 | 1,30E-05 | 1,24E-03 |
| 1660086 | <i>FAM100A</i> | 0,46 | 1,35E-05 | 1,28E-03 |
| 6270553 | <i>CXCL10</i> | 0,46 | 1,35E-05 | 1,28E-03 |
| 4860114 | <i>CXCR7</i> | 0,46 | 1,36E-05 | 1,29E-03 |
| 7330392 | <i>TAP1</i> | 0,46 | 1,38E-05 | 1,30E-03 |
| 1820398 | <i>HNRNPAB</i> | 0,46 | 1,48E-05 | 1,38E-03 |
| 620239 | <i>RCAN1</i> | 0,46 | 1,49E-05 | 1,38E-03 |
| 1230156 | <i>SERPINB9</i> | 0,46 | 1,55E-05 | 1,42E-03 |
| 4120053 | <i>PFKFB3</i> | 0,46 | 1,56E-05 | 1,42E-03 |
| 1430647 | <i>TAX1BP3</i> | 0,46 | 1,56E-05 | 1,42E-03 |

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| 2970575 | <i>CCL4L2</i> | 0,46 | 1,58E-05 | 1,43E-03 |
| 1230767 | <i>IFITM2</i> | 0,46 | 1,62E-05 | 1,46E-03 |
| 450615 | <i>MT2A</i> | 0,46 | 1,62E-05 | 1,46E-03 |
| 6020424 | <i>LMNA</i> | 0,46 | 1,63E-05 | 1,47E-03 |
| 4390703 | <i>PTPN1</i> | 0,46 | 1,69E-05 | 1,51E-03 |
| 1570746 | <i>LOC651816</i> | 0,46 | 1,71E-05 | 1,52E-03 |
| 780762 | <i>CSNK1D</i> | 0,46 | 1,73E-05 | 1,53E-03 |
| 60470 | <i>STX11</i> | 0,46 | 1,75E-05 | 1,54E-03 |
| 5570139 | <i>QPCT</i> | 0,45 | 1,79E-05 | 1,57E-03 |
| 6650465 | <i>SLC15A4</i> | 0,45 | 1,82E-05 | 1,59E-03 |
| 6580717 | <i>ZMYND15</i> | 0,45 | 1,82E-05 | 1,59E-03 |
| 130403 | <i>RNF19B</i> | 0,45 | 1,90E-05 | 1,65E-03 |
| 6060315 | <i>FERMT3</i> | 0,45 | 1,91E-05 | 1,66E-03 |
| 2640725 | <i>ARSJ</i> | 0,45 | 1,92E-05 | 1,66E-03 |
| 2640192 | <i>BNIP3L</i> | 0,45 | 1,93E-05 | 1,67E-03 |
| 7100164 | <i>HIGD1A</i> | 0,45 | 1,94E-05 | 1,67E-03 |
| 7050609 | <i>XPNPEP1</i> | 0,45 | 1,94E-05 | 1,67E-03 |
| 3930059 | <i>E2F3</i> | 0,45 | 2,00E-05 | 1,71E-03 |
| 2000300 | <i>IFI30</i> | 0,45 | 2,00E-05 | 1,71E-03 |
| 1400059 | <i>ZBTB34</i> | 0,45 | 2,04E-05 | 1,73E-03 |
| 6960372 | <i>SH3GLB1</i> | 0,45 | 2,04E-05 | 1,73E-03 |
| 3370075 | <i>EDG6</i> | 0,45 | 2,07E-05 | 1,75E-03 |
| 5050427 | <i>FKBP1A</i> | 0,45 | 2,07E-05 | 1,75E-03 |
| 4200450 | <i>G6PD</i> | 0,45 | 2,17E-05 | 1,81E-03 |
| 3780092 | <i>TNFRSF21</i> | 0,45 | 2,33E-05 | 1,91E-03 |
| 360619 | <i>FGR</i> | 0,45 | 2,35E-05 | 1,92E-03 |
| 1410201 | <i>CD59</i> | 0,45 | 2,36E-05 | 1,93E-03 |
| 1070754 | <i>CAP1</i> | 0,45 | 2,39E-05 | 1,95E-03 |
| 650241 | <i>IER5</i> | 0,45 | 2,41E-05 | 1,96E-03 |
| 4590064 | <i>CDK2</i> | 0,45 | 2,43E-05 | 1,97E-03 |
| 6250397 | <i>DPH3</i> | 0,45 | 2,47E-05 | 1,99E-03 |
| 6620121 | <i>CCL8</i> | 0,45 | 2,51E-05 | 2,02E-03 |

Hepatology

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|---------|-----------------|------|----------|----------|
| 3890255 | <i>TOP2B</i> | 0,45 | 2,54E-05 | 2,04E-03 |
| 5690437 | <i>ILF2</i> | 0,45 | 2,56E-05 | 2,06E-03 |
| 540288 | <i>TMEM88</i> | 0,45 | 2,59E-05 | 2,07E-03 |
| 4230475 | <i>SOX9</i> | 0,45 | 2,60E-05 | 2,07E-03 |
| 1440408 | <i>GEM</i> | 0,45 | 2,64E-05 | 2,10E-03 |
| 1090575 | <i>WWC1</i> | 0,45 | 2,64E-05 | 2,10E-03 |
| 6510072 | <i>ACTG1</i> | 0,45 | 2,66E-05 | 2,12E-03 |
| 5670424 | <i>GNA15</i> | 0,45 | 2,69E-05 | 2,14E-03 |
| 4280482 | <i>DRAM</i> | 0,45 | 2,70E-05 | 2,14E-03 |
| 4560736 | <i>SLCO4A1</i> | 0,45 | 2,78E-05 | 2,19E-03 |
| 4230102 | <i>SOCS3</i> | 0,45 | 2,79E-05 | 2,19E-03 |
| 1660196 | <i>HK1</i> | 0,44 | 2,81E-05 | 2,20E-03 |
| 4670750 | <i>TNFRSF1A</i> | 0,44 | 2,83E-05 | 2,21E-03 |
| 3850722 | <i>TMEM185B</i> | 0,44 | 2,84E-05 | 2,21E-03 |
| 3370164 | <i>ATP1A1</i> | 0,44 | 2,85E-05 | 2,22E-03 |
| 6520180 | <i>IL18RAP</i> | 0,44 | 2,88E-05 | 2,23E-03 |
| 7560593 | <i>OSM</i> | 0,44 | 2,89E-05 | 2,23E-03 |
| 1990753 | <i>SLA</i> | 0,44 | 2,91E-05 | 2,25E-03 |
| 5810504 | <i>METRNL</i> | 0,44 | 2,95E-05 | 2,27E-03 |
| 1340669 | <i>HS.92308</i> | 0,44 | 2,97E-05 | 2,28E-03 |
| 670082 | <i>GNA12</i> | 0,44 | 3,02E-05 | 2,32E-03 |
| 4540228 | <i>CD300LF</i> | 0,44 | 3,06E-05 | 2,34E-03 |
| 1440348 | <i>SLCO3A1</i> | 0,44 | 3,07E-05 | 2,35E-03 |
| 5910546 | <i>MGC4677</i> | 0,44 | 3,22E-05 | 2,44E-03 |
| 2680110 | <i>TM4SF1</i> | 0,44 | 3,25E-05 | 2,45E-03 |
| 1010435 | <i>C1ORF55</i> | 0,44 | 3,27E-05 | 2,46E-03 |
| 360475 | <i>PLAUR</i> | 0,44 | 3,29E-05 | 2,47E-03 |
| 1430673 | <i>SDCBP2</i> | 0,44 | 3,38E-05 | 2,52E-03 |
| 1500762 | <i>C3ORF37</i> | 0,44 | 3,42E-05 | 2,54E-03 |
| 7330026 | <i>FRAT2</i> | 0,44 | 3,48E-05 | 2,57E-03 |
| 6330725 | <i>BCL3</i> | 0,44 | 3,49E-05 | 2,57E-03 |
| 3940148 | <i>CHMP1B</i> | 0,44 | 3,60E-05 | 2,64E-03 |

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| 160092 | <i>HSPA6</i> | 0,44 | 3,62E-05 | 2,65E-03 |
| 1820632 | <i>PTGS2</i> | 0,44 | 3,68E-05 | 2,68E-03 |
| 1510719 | <i>PLDN</i> | 0,44 | 3,68E-05 | 2,68E-03 |
| 5490546 | <i>SLC30A1</i> | 0,44 | 3,68E-05 | 2,68E-03 |
| 1450349 | <i>LOC653158</i> | 0,44 | 3,78E-05 | 2,73E-03 |
| 7100288 | <i>CCT2</i> | 0,44 | 3,80E-05 | 2,73E-03 |
| 940274 | <i>GK</i> | 0,44 | 3,80E-05 | 2,73E-03 |
| 2690324 | <i>KIAA1754</i> | 0,44 | 3,81E-05 | 2,73E-03 |
| 510672 | <i>LOC731878</i> | 0,44 | 3,82E-05 | 2,74E-03 |
| 1980687 | <i>PITPNB</i> | 0,44 | 3,82E-05 | 2,74E-03 |
| 70451 | <i>WAS</i> | 0,44 | 3,83E-05 | 2,74E-03 |
| 1940524 | <i>STS-1</i> | 0,44 | 3,84E-05 | 2,74E-03 |
| 7160327 | <i>ARPC2</i> | 0,44 | 3,86E-05 | 2,74E-03 |
| 7650097 | <i>OASL</i> | 0,44 | 3,88E-05 | 2,75E-03 |
| 270136 | <i>RFX2</i> | 0,44 | 3,91E-05 | 2,77E-03 |
| 360500 | <i>SRGN</i> | 0,44 | 3,92E-05 | 2,77E-03 |
| 4610608 | <i>LOC731049</i> | 0,44 | 3,98E-05 | 2,81E-03 |
| 4220431 | <i>EXT1</i> | 0,44 | 4,01E-05 | 2,82E-03 |
| 5900246 | <i>HS.551128</i> | 0,44 | 4,18E-05 | 2,91E-03 |
| 2450504 | <i>LONRF3</i> | 0,44 | 4,28E-05 | 2,97E-03 |
| 6760543 | <i>UBAP1</i> | 0,44 | 4,29E-05 | 2,98E-03 |
| 7160239 | <i>FOSB</i> | 0,44 | 4,30E-05 | 2,98E-03 |
| 2810730 | <i>PPHLN1</i> | 0,44 | 4,34E-05 | 3,00E-03 |
| 1940504 | <i>FKBP1A</i> | 0,44 | 4,34E-05 | 3,00E-03 |
| 7610131 | <i>EPAS1</i> | 0,44 | 4,36E-05 | 3,00E-03 |
| 1170246 | <i>GEM</i> | 0,44 | 4,40E-05 | 3,01E-03 |
| 5810047 | <i>F2RL1</i> | 0,44 | 4,41E-05 | 3,01E-03 |
| 2940577 | <i>HSPA2</i> | 0,44 | 4,41E-05 | 3,01E-03 |
| 60647 | <i>GPX1</i> | 0,43 | 4,43E-05 | 3,01E-03 |
| 780554 | <i>MBNL2</i> | 0,43 | 4,62E-05 | 3,12E-03 |
| 5220093 | <i>HAVCR2</i> | 0,43 | 4,66E-05 | 3,14E-03 |
| 5910600 | <i>FAM57A</i> | 0,43 | 4,91E-05 | 3,28E-03 |

Hepatology

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| 1110736 | <i>CSNK1D</i> | 0,43 | 4,92E-05 | 3,28E-03 |
| 1820097 | <i>ZNF410</i> | 0,43 | 4,98E-05 | 3,32E-03 |
| 3190112 | <i>SERPINB1</i> | 0,43 | 5,00E-05 | 3,32E-03 |
| 450554 | <i>CCNL1</i> | 0,43 | 5,03E-05 | 3,33E-03 |
| 4150369 | <i>GK</i> | 0,43 | 5,11E-05 | 3,38E-03 |
| 1510608 | <i>HS.371609</i> | 0,43 | 5,16E-05 | 3,41E-03 |
| 2140682 | <i>MT1E</i> | 0,43 | 5,63E-05 | 3,65E-03 |
| 2900747 | <i>C10ORF10</i> | 0,43 | 5,67E-05 | 3,67E-03 |
| 4210039 | <i>ABCB1</i> | 0,43 | 5,72E-05 | 3,69E-03 |
| 4920372 | <i>KBTBD2</i> | 0,43 | 5,72E-05 | 3,69E-03 |
| 5820338 | <i>SNRK</i> | 0,43 | 5,74E-05 | 3,70E-03 |
| 1410020 | <i>TMCO3</i> | 0,43 | 5,78E-05 | 3,71E-03 |
| 2510520 | <i>ABL2</i> | 0,43 | 6,01E-05 | 3,83E-03 |
| 6370594 | <i>PPAPDC2</i> | 0,43 | 6,10E-05 | 3,88E-03 |
| 4590110 | <i>40057</i> | 0,43 | 6,13E-05 | 3,89E-03 |
| 4670500 | <i>HIVEP1</i> | 0,43 | 6,15E-05 | 3,90E-03 |
| 4200441 | <i>SEC14L1</i> | 0,43 | 6,25E-05 | 3,95E-03 |
| 3370768 | <i>C1ORF24</i> | 0,43 | 6,27E-05 | 3,96E-03 |
| 940220 | <i>NOD2</i> | 0,43 | 6,29E-05 | 3,97E-03 |
| 1580524 | <i>ACSL3</i> | 0,43 | 6,37E-05 | 4,00E-03 |
| 3130612 | <i>TRIP6</i> | 0,43 | 6,41E-05 | 4,00E-03 |
| 110307 | <i>FILIP1L</i> | 0,43 | 6,49E-05 | 4,04E-03 |
| 3370037 | <i>HS.561747</i> | 0,43 | 6,50E-05 | 4,04E-03 |
| 6330008 | <i>PDLIM3</i> | 0,43 | 6,52E-05 | 4,05E-03 |
| 6060731 | <i>MAPRE1</i> | 0,43 | 6,53E-05 | 4,05E-03 |
| 60630 | <i>GLA</i> | 0,43 | 6,80E-05 | 4,19E-03 |
| 5090626 | <i>FAP</i> | 0,43 | 6,85E-05 | 4,22E-03 |
| 730121 | <i>FBXO7</i> | 0,42 | 6,94E-05 | 4,26E-03 |
| 4730711 | <i>HS.193406</i> | 0,42 | 6,94E-05 | 4,26E-03 |
| 1820347 | <i>ASB1</i> | 0,42 | 6,96E-05 | 4,27E-03 |
| 5310286 | <i>SPA17</i> | 0,42 | 7,09E-05 | 4,32E-03 |
| 4180369 | <i>ATP2B4</i> | 0,42 | 7,19E-05 | 4,37E-03 |

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| 7050736 | <i>FERMT3</i> | 0,42 | 7,24E-05 | 4,39E-03 |
| 3840131 | <i>NUP153</i> | 0,42 | 7,27E-05 | 4,40E-03 |
| 2060477 | <i>AGPAT9</i> | 0,42 | 7,33E-05 | 4,43E-03 |
| 1570382 | <i>ADAMTS9</i> | 0,42 | 7,41E-05 | 4,47E-03 |
| 3840593 | <i>SP110</i> | 0,42 | 7,49E-05 | 4,50E-03 |
| 2370358 | <i>TYROBP</i> | 0,42 | 7,49E-05 | 4,50E-03 |
| 5720246 | <i>AQP7P2</i> | 0,42 | 7,51E-05 | 4,50E-03 |
| 150162 | <i>FNDC4</i> | 0,42 | 7,57E-05 | 4,52E-03 |
| 4390100 | <i>LAMC2</i> | 0,42 | 7,57E-05 | 4,52E-03 |
| 5570678 | <i>RPS27L</i> | 0,42 | 7,58E-05 | 4,52E-03 |
| 2480092 | <i>CCL22</i> | 0,42 | 7,59E-05 | 4,52E-03 |
| 7570753 | <i>PCDHB2</i> | 0,42 | 7,61E-05 | 4,52E-03 |
| 4540367 | <i>LOC644647</i> | 0,42 | 7,62E-05 | 4,52E-03 |
| 20241 | <i>SLC7A1</i> | 0,42 | 7,63E-05 | 4,52E-03 |
| 1410010 | <i>PDLIM1</i> | 0,42 | 7,66E-05 | 4,53E-03 |
| 1740242 | <i>FVT1</i> | 0,42 | 7,78E-05 | 4,59E-03 |
| 1190142 | <i>EMILIN2</i> | 0,42 | 7,83E-05 | 4,60E-03 |
| 7160142 | <i>FREQ</i> | 0,42 | 7,88E-05 | 4,63E-03 |
| 1660300 | <i>PRCP</i> | 0,42 | 7,94E-05 | 4,65E-03 |
| 6580634 | <i>GPR4</i> | 0,42 | 8,05E-05 | 4,70E-03 |
| 7000465 | <i>RGL4</i> | 0,42 | 8,17E-05 | 4,76E-03 |
| 4900719 | <i>HS.562122</i> | 0,42 | 8,21E-05 | 4,77E-03 |
| 6480692 | <i>NCF4</i> | 0,42 | 8,28E-05 | 4,80E-03 |
| 1470215 | <i>MAP3K8</i> | 0,42 | 8,36E-05 | 4,83E-03 |
| 1980059 | <i>RASSF2</i> | 0,42 | 8,48E-05 | 4,89E-03 |
| 5360193 | <i>SIRPA</i> | 0,42 | 8,67E-05 | 4,99E-03 |
| 510468 | <i>NFE2</i> | 0,42 | 8,68E-05 | 4,99E-03 |
| 3170139 | <i>PHACTR1</i> | 0,42 | 8,78E-05 | 5,03E-03 |
| 2360445 | <i>NHP2L1</i> | 0,42 | 8,78E-05 | 5,03E-03 |
| 5960653 | <i>TMEM55A</i> | 0,42 | 8,79E-05 | 5,03E-03 |
| 3370474 | <i>SERTAD3</i> | 0,42 | 8,88E-05 | 5,07E-03 |
| 2710746 | <i>BCAR1</i> | 0,42 | 8,92E-05 | 5,09E-03 |

Hepatology

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| 2490719 | <i>STK17B</i> | 0,42 | 9,02E-05 | 5,12E-03 |
| 1820594 | <i>HBEGF</i> | 0,42 | 9,03E-05 | 5,12E-03 |
| 1430170 | <i>FGL2</i> | 0,42 | 9,13E-05 | 5,16E-03 |
| 3840215 | <i>FAM102A</i> | 0,42 | 9,18E-05 | 5,17E-03 |
| 4230619 | <i>GCA</i> | 0,42 | 9,31E-05 | 5,24E-03 |
| 830019 | <i>PPARG</i> | 0,42 | 9,42E-05 | 5,29E-03 |
| 2030553 | <i>H3F3A</i> | 0,42 | 9,48E-05 | 5,32E-03 |
| 7160224 | <i>APH1B</i> | 0,42 | 9,56E-05 | 5,34E-03 |
| 830113 | <i>TNFRSF10D</i> | 0,42 | 9,62E-05 | 5,36E-03 |
| 5290544 | <i>NAT8</i> | 0,42 | 9,75E-05 | 5,40E-03 |
| 4890133 | <i>NUFIP2</i> | 0,42 | 9,86E-05 | 5,43E-03 |
| 870091 | <i>FLJ42393</i> | 0,42 | 9,86E-05 | 5,43E-03 |
| 630010 | <i>FKBP1A</i> | 0,42 | 9,92E-05 | 5,45E-03 |
| 5810022 | <i>MLKL</i> | 0,42 | 1,00E-04 | 5,50E-03 |
| 7380136 | <i>BNIP2</i> | 0,42 | 1,01E-04 | 5,54E-03 |
| 3370139 | <i>MYO1G</i> | 0,42 | 1,02E-04 | 5,56E-03 |
| 4390131 | <i>PRAMEF10</i> | 0,42 | 1,04E-04 | 5,62E-03 |
| 5270167 | <i>GNL3</i> | 0,42 | 1,04E-04 | 5,62E-03 |
| 4640632 | <i>HS.130623</i> | 0,42 | 1,05E-04 | 5,68E-03 |
| 150373 | <i>FABP4</i> | 0,42 | 1,05E-04 | 5,68E-03 |
| 3400019 | <i>RGS2</i> | 0,42 | 1,06E-04 | 5,69E-03 |
| 380327 | <i>LOC730820</i> | 0,41 | 1,06E-04 | 5,70E-03 |
| 6650079 | <i>C3ORF14</i> | 0,41 | 1,07E-04 | 5,72E-03 |
| 4280100 | <i>FAT</i> | 0,41 | 1,08E-04 | 5,77E-03 |
| 4060600 | <i>SELE</i> | 0,41 | 1,08E-04 | 5,77E-03 |
| 4150356 | <i>ARHGEF5</i> | 0,41 | 1,10E-04 | 5,81E-03 |
| 4480497 | <i>SIGLEC10</i> | 0,41 | 1,12E-04 | 5,93E-03 |
| 5890386 | <i>LOC642103</i> | 0,41 | 1,13E-04 | 5,94E-03 |
| 630167 | <i>SDCBP</i> | 0,41 | 1,13E-04 | 5,94E-03 |
| 3360681 | <i>TNFAIP3</i> | 0,41 | 1,16E-04 | 6,04E-03 |
| 110328 | <i>C14ORF32</i> | 0,41 | 1,16E-04 | 6,04E-03 |
| 6250241 | <i>APOB48R</i> | 0,41 | 1,17E-04 | 6,10E-03 |

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| 1940707 | <i>RABGEF1</i> | 0,41 | 1,18E-04 | 6,13E-03 |
| 3060292 | <i>LAMP2</i> | 0,41 | 1,18E-04 | 6,13E-03 |
| 4920110 | <i>GADD45B</i> | 0,41 | 1,19E-04 | 6,16E-03 |
| 6860193 | <i>RTN1</i> | 0,41 | 1,22E-04 | 6,27E-03 |
| 4670020 | <i>NIPA2</i> | 0,41 | 1,23E-04 | 6,31E-03 |
| 2320735 | <i>PIAS2</i> | 0,41 | 1,24E-04 | 6,34E-03 |
| 4280458 | <i>MLXIP</i> | 0,41 | 1,25E-04 | 6,35E-03 |
| 510703 | <i>KBTBD9</i> | 0,41 | 1,25E-04 | 6,35E-03 |
| 5910609 | <i>IL4R</i> | 0,41 | 1,25E-04 | 6,35E-03 |
| 5360376 | <i>LAPTM5</i> | 0,41 | 1,25E-04 | 6,36E-03 |
| 6960544 | <i>TMEM185B</i> | 0,41 | 1,25E-04 | 6,37E-03 |
| 150148 | <i>MAP1S</i> | 0,41 | 1,28E-04 | 6,47E-03 |
| 6620292 | <i>C10ORF54</i> | 0,41 | 1,30E-04 | 6,57E-03 |
| 5360670 | <i>PLAU</i> | 0,41 | 1,31E-04 | 6,57E-03 |
| 3140008 | <i>PPM1G</i> | 0,41 | 1,32E-04 | 6,65E-03 |
| 60397 | <i>TRK1</i> | 0,41 | 1,33E-04 | 6,67E-03 |
| 5360736 | <i>HABP4</i> | 0,41 | 1,33E-04 | 6,67E-03 |
| 3130079 | <i>EIF2B2</i> | 0,41 | 1,33E-04 | 6,68E-03 |
| 3870594 | <i>IFI16</i> | 0,41 | 1,34E-04 | 6,71E-03 |
| 3890523 | <i>IL7R</i> | 0,41 | 1,35E-04 | 6,75E-03 |
| 6270022 | <i>HCK</i> | 0,41 | 1,37E-04 | 6,85E-03 |
| 3400692 | <i>TPM3</i> | 0,41 | 1,38E-04 | 6,90E-03 |
| 5490768 | <i>GPR56</i> | 0,41 | 1,41E-04 | 6,97E-03 |
| 160170 | <i>PKM2</i> | 0,41 | 1,41E-04 | 6,97E-03 |
| 2970563 | <i>RPRC1</i> | 0,41 | 1,42E-04 | 7,02E-03 |
| 770079 | <i>ATP2A2</i> | 0,41 | 1,42E-04 | 7,02E-03 |
| 6770309 | <i>MYL6</i> | 0,41 | 1,43E-04 | 7,05E-03 |
| 1010735 | <i>DDX24</i> | 0,41 | 1,44E-04 | 7,10E-03 |
| 4730564 | <i>TRIM37</i> | 0,41 | 1,44E-04 | 7,11E-03 |
| 2140408 | <i>CS</i> | 0,41 | 1,45E-04 | 7,11E-03 |
| 5420754 | <i>IL1RL1</i> | 0,41 | 1,48E-04 | 7,24E-03 |
| 6020445 | <i>TMEM32</i> | 0,41 | 1,49E-04 | 7,26E-03 |

Hepatology

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| 7000079 | <i>C13ORF18</i> | 0,41 | 1,50E-04 | 7,32E-03 |
| 7560180 | <i>SUSD1</i> | 0,41 | 1,52E-04 | 7,38E-03 |
| 2360452 | <i>PFKP</i> | 0,41 | 1,53E-04 | 7,43E-03 |
| 1340491 | <i>SP110</i> | 0,41 | 1,57E-04 | 7,61E-03 |
| 3930593 | <i>ACSL3</i> | 0,41 | 1,58E-04 | 7,66E-03 |
| 7100239 | <i>OAZ1</i> | 0,41 | 1,60E-04 | 7,71E-03 |
| 6840446 | <i>HS.48787</i> | 0,41 | 1,60E-04 | 7,73E-03 |
| 5260630 | <i>SOCS3</i> | 0,40 | 1,61E-04 | 7,75E-03 |
| 3140743 | <i>TACC2</i> | 0,40 | 1,62E-04 | 7,81E-03 |
| 670639 | <i>LONP2</i> | 0,40 | 1,63E-04 | 7,82E-03 |
| 1850546 | <i>FAM102A</i> | 0,40 | 1,63E-04 | 7,84E-03 |
| 4290682 | <i>LOC645582</i> | 0,40 | 1,63E-04 | 7,84E-03 |
| 630475 | <i>DHODH</i> | 0,40 | 1,64E-04 | 7,86E-03 |
| 6380672 | <i>CA4</i> | 0,40 | 1,66E-04 | 7,93E-03 |
| 620521 | <i>HS.516784</i> | 0,40 | 1,67E-04 | 7,94E-03 |
| 6220369 | <i>GRIA3</i> | 0,40 | 1,68E-04 | 8,00E-03 |
| 2640301 | <i>TNF</i> | 0,40 | 1,69E-04 | 8,02E-03 |
| 580041 | <i>HS.59666</i> | 0,40 | 1,69E-04 | 8,03E-03 |
| 1570538 | <i>GTF2E2</i> | 0,40 | 1,69E-04 | 8,03E-03 |
| 4180497 | <i>LOC651808</i> | 0,40 | 1,71E-04 | 8,10E-03 |
| 6620689 | <i>MTHFD2</i> | 0,40 | 1,71E-04 | 8,10E-03 |
| 6220382 | <i>CD68</i> | 0,40 | 1,71E-04 | 8,10E-03 |
| 150020 | <i>C19ORF22</i> | 0,40 | 1,76E-04 | 8,30E-03 |
| 2640088 | <i>ALDOA</i> | 0,40 | 1,76E-04 | 8,30E-03 |
| 2640292 | <i>CTGF</i> | 0,40 | 1,77E-04 | 8,32E-03 |
| 4280577 | <i>BMP2</i> | 0,40 | 1,77E-04 | 8,32E-03 |
| 1240114 | <i>PRAMEF10</i> | 0,40 | 1,77E-04 | 8,32E-03 |
| 730554 | <i>ICAM4</i> | 0,40 | 1,79E-04 | 8,34E-03 |
| 2100452 | <i>NUP35</i> | 0,40 | 1,80E-04 | 8,39E-03 |
| 5860152 | <i>CD44</i> | 0,40 | 1,80E-04 | 8,39E-03 |
| 7320041 | <i>GALNAC4S-6ST</i> | 0,40 | 1,81E-04 | 8,41E-03 |
| 3940446 | <i>TXN</i> | 0,40 | 1,82E-04 | 8,44E-03 |

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| 7320288 | <i>CXCR4</i> | 0,40 | 1,82E-04 | 8,44E-03 |
| 3440669 | <i>IL8RA</i> | 0,40 | 1,83E-04 | 8,45E-03 |
| 1570193 | <i>ARHGDI1B</i> | 0,40 | 1,84E-04 | 8,49E-03 |
| 580703 | <i>LOC728153</i> | 0,40 | 1,90E-04 | 8,72E-03 |
| 6580168 | <i>ARRDC4</i> | 0,40 | 1,91E-04 | 8,74E-03 |
| 780725 | <i>ADAM8</i> | 0,40 | 1,92E-04 | 8,77E-03 |
| 6220746 | <i>GLIPR1</i> | 0,40 | 1,92E-04 | 8,77E-03 |
| 1740240 | <i>PPP2CA</i> | 0,40 | 1,93E-04 | 8,81E-03 |
| 10224 | <i>METRNL</i> | 0,40 | 1,94E-04 | 8,82E-03 |
| 5910594 | <i>PTP4A3</i> | 0,40 | 1,94E-04 | 8,84E-03 |
| 5890451 | <i>CTNNA1</i> | 0,40 | 1,97E-04 | 8,94E-03 |
| 4610390 | <i>ACTB</i> | 0,40 | 1,99E-04 | 8,99E-03 |
| 1470626 | <i>CD97</i> | 0,40 | 2,00E-04 | 9,03E-03 |
| 5570132 | <i>ACTB</i> | 0,40 | 2,02E-04 | 9,08E-03 |
| 940356 | <i>IL15RA</i> | 0,40 | 2,02E-04 | 9,08E-03 |
| 3990450 | <i>IL1F7</i> | 0,40 | 2,08E-04 | 9,29E-03 |
| 940753 | <i>RALB</i> | 0,40 | 2,08E-04 | 9,29E-03 |
| 5810189 | <i>ATP2A2</i> | 0,40 | 2,09E-04 | 9,30E-03 |
| 6480092 | <i>FAM65A</i> | 0,40 | 2,10E-04 | 9,30E-03 |
| 620300 | <i>LASP1</i> | 0,40 | 2,10E-04 | 9,30E-03 |
| 3390612 | <i>TLR8</i> | 0,40 | 2,10E-04 | 9,30E-03 |
| 7000403 | <i>C20ORF45</i> | 0,40 | 2,13E-04 | 9,43E-03 |
| 6660079 | <i>CNTNAP5</i> | 0,40 | 2,14E-04 | 9,45E-03 |
| 830176 | <i>C2ORF18</i> | 0,40 | 2,15E-04 | 9,49E-03 |
| 1340600 | <i>PPP1R15A</i> | 0,40 | 2,17E-04 | 9,53E-03 |
| 6350161 | <i>LCP1</i> | 0,40 | 2,18E-04 | 9,55E-03 |
| 6900601 | <i>HS.157344</i> | 0,40 | 2,19E-04 | 9,61E-03 |
| 6290639 | <i>FLJ36701</i> | 0,40 | 2,20E-04 | 9,62E-03 |
| 4640156 | <i>HS.564256</i> | 0,40 | 2,21E-04 | 9,68E-03 |
| 7510731 | <i>WBP5</i> | 0,40 | 2,23E-04 | 9,72E-03 |
| 3460687 | <i>RRP12</i> | 0,40 | 2,23E-04 | 9,72E-03 |
| 4280253 | <i>PAK1IP1</i> | 0,40 | 2,23E-04 | 9,73E-03 |

Hepatology

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| 2850438 | <i>RBM12</i> | 0,40 | 2,25E-04 | 9,78E-03 |
| 5050162 | <i>CD83</i> | 0,40 | 2,27E-04 | 9,85E-03 |
| 1470673 | <i>RFX2</i> | 0,40 | 2,28E-04 | 9,88E-03 |
| 6280167 | <i>LOC401115</i> | 0,40 | 2,30E-04 | 9,97E-03 |
| 6060113 | <i>TBX15</i> | 0,40 | 2,32E-04 | 1,00E-02 |
| 1940343 | <i>PANX1</i> | 0,40 | 2,32E-04 | 1,00E-02 |
| 4760767 | <i>UBE2D3</i> | 0,40 | 2,34E-04 | 1,01E-02 |
| 1780367 | <i>C12ORF44</i> | 0,40 | 2,36E-04 | 1,01E-02 |
| 940706 | <i>AP1S2</i> | 0,40 | 2,39E-04 | 1,02E-02 |
| 1430136 | <i>ARF4</i> | 0,40 | 2,40E-04 | 1,03E-02 |
| 2640519 | <i>NBPF1</i> | 0,39 | 2,42E-04 | 1,03E-02 |
| 6760255 | <i>MNT</i> | 0,39 | 2,43E-04 | 1,04E-02 |
| 7160360 | <i>SKAP2</i> | 0,39 | 2,44E-04 | 1,04E-02 |
| 4010546 | <i>PDCD2</i> | 0,39 | 2,50E-04 | 1,06E-02 |
| 730739 | <i>TCEAL3</i> | 0,39 | 2,52E-04 | 1,07E-02 |
| 6220195 | <i>BATF</i> | 0,39 | 2,53E-04 | 1,07E-02 |
| 4150201 | <i>BCL2</i> | 0,39 | 2,55E-04 | 1,08E-02 |
| 6250019 | <i>SHC1</i> | 0,39 | 2,55E-04 | 1,08E-02 |
| 3830349 | <i>IL7R</i> | 0,39 | 2,56E-04 | 1,08E-02 |
| 6650379 | <i>SERTAD3</i> | 0,39 | 2,56E-04 | 1,08E-02 |
| 6330356 | <i>LASS5</i> | 0,39 | 2,59E-04 | 1,09E-02 |
| 7050152 | <i>EVI2B</i> | 0,39 | 2,60E-04 | 1,09E-02 |
| 2260477 | <i>PTGS2</i> | 0,39 | 2,62E-04 | 1,10E-02 |
| 4900435 | <i>TNFSF13B</i> | 0,39 | 2,67E-04 | 1,12E-02 |
| 6110037 | <i>LILRA3</i> | 0,39 | 2,68E-04 | 1,12E-02 |
| 5690687 | <i>CTGF</i> | 0,39 | 2,68E-04 | 1,12E-02 |
| 1110373 | <i>C15ORF48</i> | 0,39 | 2,69E-04 | 1,12E-02 |
| 5960747 | <i>TRIM22</i> | 0,39 | 2,70E-04 | 1,13E-02 |
| 1770044 | <i>SEC14L1</i> | 0,39 | 2,71E-04 | 1,13E-02 |
| 7380193 | <i>ARPC3</i> | 0,39 | 2,72E-04 | 1,13E-02 |
| 7040477 | <i>PLOD2</i> | 0,39 | 2,78E-04 | 1,15E-02 |
| 7510707 | <i>E2F6</i> | 0,39 | 2,87E-04 | 1,18E-02 |

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| 2570112 | <i>ABLIM1</i> | 0,39 | 2,87E-04 | 1,18E-02 |
| 4290612 | <i>PIWIL1</i> | 0,39 | 2,91E-04 | 1,19E-02 |
| 7570148 | <i>LMNB2</i> | 0,39 | 2,92E-04 | 1,19E-02 |
| 1010161 | <i>ARL4A</i> | 0,39 | 2,96E-04 | 1,20E-02 |
| 2470458 | <i>MICAL1</i> | 0,39 | 2,96E-04 | 1,20E-02 |
| 2320129 | <i>CSDA</i> | 0,39 | 3,01E-04 | 1,22E-02 |
| 5340187 | <i>TUBA1A</i> | 0,39 | 3,02E-04 | 1,22E-02 |
| 6400044 | <i>EPDR1</i> | 0,39 | 3,02E-04 | 1,22E-02 |
| 4070259 | <i>GNA12</i> | 0,39 | 3,04E-04 | 1,23E-02 |
| 1110017 | <i>SON</i> | 0,39 | 3,06E-04 | 1,24E-02 |
| 2690270 | <i>SNIP1</i> | 0,39 | 3,06E-04 | 1,24E-02 |
| 5900253 | <i>BATF3</i> | 0,39 | 3,07E-04 | 1,24E-02 |
| 1010360 | <i>GCH1</i> | 0,39 | 3,12E-04 | 1,26E-02 |
| 7150176 | <i>MAT2A</i> | 0,39 | 3,14E-04 | 1,26E-02 |
| 1190445 | <i>TOMM34</i> | 0,39 | 3,18E-04 | 1,27E-02 |
| 7210170 | <i>DSE</i> | 0,39 | 3,20E-04 | 1,28E-02 |
| 6020255 | <i>EGR2</i> | 0,39 | 3,21E-04 | 1,28E-02 |
| 630465 | <i>SCHIP1</i> | 0,39 | 3,22E-04 | 1,29E-02 |
| 3710068 | <i>WARS</i> | 0,39 | 3,27E-04 | 1,30E-02 |
| 110682 | <i>S100A11</i> | 0,39 | 3,32E-04 | 1,32E-02 |
| 870301 | <i>HKDC1</i> | 0,39 | 3,35E-04 | 1,33E-02 |
| 4880215 | <i>GTF2B</i> | 0,39 | 3,36E-04 | 1,33E-02 |
| 6420286 | <i>NDEL1</i> | 0,39 | 3,38E-04 | 1,33E-02 |
| 4570154 | <i>HS.496897</i> | 0,39 | 3,38E-04 | 1,34E-02 |
| 1440180 | <i>C20ORF24</i> | 0,39 | 3,41E-04 | 1,34E-02 |
| 6510528 | <i>VPS37C</i> | 0,39 | 3,41E-04 | 1,34E-02 |
| 4780523 | <i>TMEM200A</i> | 0,39 | 3,46E-04 | 1,35E-02 |
| 6620392 | <i>LFNG</i> | 0,39 | 3,48E-04 | 1,36E-02 |
| 4860152 | <i>PLA2G2A</i> | 0,39 | 3,48E-04 | 1,36E-02 |
| 5050768 | <i>LONRF1</i> | 0,39 | 3,48E-04 | 1,36E-02 |
| 1170072 | <i>ZSWIM4</i> | 0,39 | 3,49E-04 | 1,36E-02 |
| 2900594 | <i>PGD</i> | 0,39 | 3,49E-04 | 1,36E-02 |

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| 4230195 | <i>NAV2</i> | 0,39 | 3,51E-04 | 1,37E-02 |
| 2000546 | <i>C3ORF10</i> | 0,39 | 3,53E-04 | 1,38E-02 |
| 7380382 | <i>ZNF364</i> | 0,38 | 3,58E-04 | 1,39E-02 |
| 7050619 | <i>LRRFIP2</i> | 0,38 | 3,62E-04 | 1,40E-02 |
| 3840154 | <i>SPP1</i> | 0,38 | 3,66E-04 | 1,41E-02 |
| 2570767 | <i>CDC42SE2</i> | 0,38 | 3,67E-04 | 1,41E-02 |
| 6860347 | <i>FAM46C</i> | 0,38 | 3,70E-04 | 1,42E-02 |
| 5360521 | <i>SFT2D1</i> | 0,38 | 3,73E-04 | 1,43E-02 |
| 770463 | <i>PDLIM3</i> | 0,38 | 3,75E-04 | 1,44E-02 |
| 2190148 | <i>GBP1</i> | 0,38 | 3,78E-04 | 1,45E-02 |
| 5310296 | <i>SLC35D1</i> | 0,38 | 3,84E-04 | 1,46E-02 |
| 3890017 | <i>CTNNA1</i> | 0,38 | 3,84E-04 | 1,46E-02 |
| 4480053 | <i>GCLM</i> | 0,38 | 3,85E-04 | 1,46E-02 |
| 7160059 | <i>ATP6V0B</i> | 0,38 | 3,87E-04 | 1,47E-02 |
| 1820450 | <i>OSCAR</i> | 0,38 | 3,92E-04 | 1,48E-02 |
| 1820326 | <i>HS.561654</i> | 0,38 | 3,93E-04 | 1,49E-02 |
| 3520239 | <i>JMJD3</i> | 0,38 | 3,95E-04 | 1,49E-02 |
| 6380441 | <i>ENO1</i> | 0,38 | 3,96E-04 | 1,49E-02 |
| 5490408 | <i>CEBPD</i> | 0,38 | 3,96E-04 | 1,49E-02 |
| 2570131 | <i>HPS1</i> | 0,38 | 4,03E-04 | 1,51E-02 |
| 610754 | <i>HS.578150</i> | 0,38 | 4,04E-04 | 1,52E-02 |
| 460082 | <i>GOLT1A</i> | 0,38 | 4,09E-04 | 1,53E-02 |
| 2680253 | <i>ANKH</i> | 0,38 | 4,10E-04 | 1,53E-02 |
| 990193 | <i>SF3B4</i> | 0,38 | 4,15E-04 | 1,54E-02 |
| 6650017 | <i>ATP6V1B2</i> | 0,38 | 4,15E-04 | 1,54E-02 |
| 3360553 | <i>KIAA1434</i> | 0,38 | 4,21E-04 | 1,56E-02 |
| 6180343 | <i>HS.540313</i> | 0,38 | 4,26E-04 | 1,58E-02 |
| 7210192 | <i>ADA</i> | 0,38 | 4,30E-04 | 1,58E-02 |
| 2120093 | <i>HS.437472</i> | 0,38 | 4,30E-04 | 1,58E-02 |
| 6840477 | <i>HS.543887</i> | 0,38 | 4,36E-04 | 1,60E-02 |
| 520358 | <i>IKBK</i> | 0,38 | 4,36E-04 | 1,60E-02 |
| 6220368 | <i>POGK</i> | 0,38 | 4,38E-04 | 1,60E-02 |

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| 1510133 | <i>CD37</i> | 0,38 | 4,42E-04 | 1,61E-02 |
| 5960296 | <i>CLDN1</i> | 0,38 | 4,43E-04 | 1,61E-02 |
| 6200619 | <i>AADAC</i> | 0,38 | 4,44E-04 | 1,62E-02 |
| 830441 | <i>SCYL1BP1</i> | 0,38 | 4,47E-04 | 1,62E-02 |
| 20673 | <i>BSG</i> | 0,38 | 4,55E-04 | 1,65E-02 |
| 840296 | <i>LOC440926</i> | 0,38 | 4,62E-04 | 1,67E-02 |
| 4200608 | <i>SPATA2</i> | 0,38 | 4,66E-04 | 1,69E-02 |
| 6860020 | <i>PLEKHA3</i> | 0,38 | 4,74E-04 | 1,71E-02 |
| 2850026 | <i>H3F3A</i> | 0,38 | 4,77E-04 | 1,72E-02 |
| 2690209 | <i>ITGAV</i> | 0,38 | 4,86E-04 | 1,74E-02 |
| 780270 | <i>TIMP2</i> | 0,38 | 4,89E-04 | 1,75E-02 |
| 3800452 | <i>EMP3</i> | 0,38 | 4,90E-04 | 1,75E-02 |
| 4920739 | <i>TAX1BP1</i> | 0,38 | 4,92E-04 | 1,75E-02 |
| 450424 | <i>CXCR7</i> | 0,38 | 4,93E-04 | 1,76E-02 |
| 5490014 | <i>ZBED4</i> | 0,38 | 4,94E-04 | 1,76E-02 |
| 2000025 | <i>LOC648024</i> | 0,38 | 5,01E-04 | 1,78E-02 |
| 6420739 | <i>PGM3</i> | 0,38 | 5,07E-04 | 1,79E-02 |
| 840554 | <i>RYBP</i> | 0,38 | 5,07E-04 | 1,79E-02 |
| 2940386 | <i>NRARP</i> | 0,38 | 5,15E-04 | 1,81E-02 |
| 6220494 | <i>LINCR</i> | 0,38 | 5,17E-04 | 1,82E-02 |
| 6420605 | <i>UBD</i> | 0,38 | 5,17E-04 | 1,82E-02 |
| 3420332 | <i>SLC37A3</i> | 0,37 | 5,18E-04 | 1,82E-02 |
| 2630202 | <i>FLJ45248</i> | 0,37 | 5,23E-04 | 1,83E-02 |
| 5910112 | <i>IL32</i> | 0,37 | 5,31E-04 | 1,85E-02 |
| 1010035 | <i>NLRP3</i> | 0,37 | 5,33E-04 | 1,85E-02 |
| 4180544 | <i>ROPN1L</i> | 0,37 | 5,33E-04 | 1,85E-02 |
| 2650019 | <i>FAM53C</i> | 0,37 | 5,37E-04 | 1,86E-02 |
| 3610561 | <i>LOC653110</i> | 0,37 | 5,38E-04 | 1,87E-02 |
| 3440367 | <i>ACSL3</i> | 0,37 | 5,41E-04 | 1,87E-02 |
| 1580435 | <i>TGM2</i> | 0,37 | 5,41E-04 | 1,87E-02 |
| 6770044 | <i>TEX10</i> | 0,37 | 5,45E-04 | 1,88E-02 |
| 110440 | <i>ITGB1</i> | 0,37 | 5,51E-04 | 1,90E-02 |

Hepatology

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| 7210253 | <i>HS.544172</i> | 0,37 | 5,52E-04 | 1,90E-02 |
| 6270750 | <i>RASGRF2</i> | 0,37 | 5,53E-04 | 1,90E-02 |
| 4280491 | <i>LOC643962</i> | 0,37 | 5,53E-04 | 1,90E-02 |
| 6200468 | <i>CKS2</i> | 0,37 | 5,57E-04 | 1,91E-02 |
| 5090056 | <i>ARFGAP3</i> | 0,37 | 5,59E-04 | 1,91E-02 |
| 7000368 | <i>UBE2L6</i> | 0,37 | 5,64E-04 | 1,92E-02 |
| 1300674 | <i>FADD</i> | 0,37 | 5,64E-04 | 1,92E-02 |
| 4200259 | <i>ACLY</i> | 0,37 | 5,66E-04 | 1,93E-02 |
| 2810040 | <i>TIPRL</i> | 0,37 | 5,72E-04 | 1,95E-02 |
| 2680044 | <i>RAB27A</i> | 0,37 | 5,73E-04 | 1,95E-02 |
| 2650753 | <i>KIAA1324L</i> | 0,37 | 5,77E-04 | 1,96E-02 |
| 4780086 | <i>CRK</i> | 0,37 | 5,80E-04 | 1,96E-02 |
| 6200577 | <i>CREB5</i> | 0,37 | 5,80E-04 | 1,96E-02 |
| 2360326 | <i>TAGLN</i> | 0,37 | 5,93E-04 | 2,00E-02 |
| 130368 | <i>PRKAR1A</i> | 0,37 | 5,94E-04 | 2,00E-02 |
| 1710315 | <i>HYDIN</i> | 0,37 | 5,99E-04 | 2,02E-02 |
| 5340246 | <i>CRIP2</i> | 0,37 | 6,02E-04 | 2,02E-02 |
| 2350703 | <i>STX3</i> | 0,37 | 6,11E-04 | 2,05E-02 |
| 6130678 | <i>HS.120150</i> | 0,37 | 6,15E-04 | 2,05E-02 |
| 5080364 | <i>ACTN1</i> | 0,37 | 6,17E-04 | 2,06E-02 |
| 70167 | <i>LY96</i> | 0,37 | 6,20E-04 | 2,07E-02 |
| 7400653 | <i>PFKFB4</i> | 0,37 | 6,41E-04 | 2,12E-02 |
| 1110180 | <i>RORA</i> | 0,37 | 6,42E-04 | 2,12E-02 |
| 6290021 | <i>PSMD7</i> | 0,37 | 6,48E-04 | 2,14E-02 |
| 5290204 | <i>THPO</i> | 0,37 | 6,53E-04 | 2,15E-02 |
| 6940605 | <i>HS.489254</i> | 0,37 | 6,55E-04 | 2,15E-02 |
| 5910402 | <i>MGC102966</i> | 0,37 | 6,59E-04 | 2,16E-02 |
| 1110465 | <i>YPEL2</i> | 0,37 | 6,59E-04 | 2,16E-02 |
| 6420386 | <i>GPSM3</i> | 0,37 | 6,66E-04 | 2,18E-02 |
| 7560471 | <i>MOBKL2C</i> | 0,37 | 6,73E-04 | 2,20E-02 |
| 4120133 | <i>HYAL2</i> | 0,37 | 6,81E-04 | 2,22E-02 |
| 6110592 | <i>ABHD11</i> | 0,37 | 6,96E-04 | 2,26E-02 |

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| 7210400 | <i>STEAP1</i> | 0,37 | 7,04E-04 | 2,28E-02 |
| 290358 | <i>SGMS1</i> | 0,37 | 7,05E-04 | 2,28E-02 |
| 1770400 | <i>COMMD8</i> | 0,37 | 7,10E-04 | 2,30E-02 |
| 510398 | <i>ECOP</i> | 0,37 | 7,13E-04 | 2,30E-02 |
| 6350037 | <i>DNM1L</i> | 0,37 | 7,17E-04 | 2,31E-02 |
| 5340020 | <i>HS.22689</i> | 0,37 | 7,21E-04 | 2,32E-02 |
| 4560576 | <i>MYD88</i> | 0,37 | 7,23E-04 | 2,32E-02 |
| 650709 | <i>RNF34</i> | 0,37 | 7,28E-04 | 2,34E-02 |
| 4560164 | <i>PDLIM7</i> | 0,37 | 7,28E-04 | 2,34E-02 |
| 4670255 | <i>41701</i> | 0,37 | 7,41E-04 | 2,37E-02 |
| 4390398 | <i>LCN2</i> | 0,37 | 7,42E-04 | 2,37E-02 |
| 3830093 | <i>LMCD1</i> | 0,37 | 7,44E-04 | 2,37E-02 |
| 3520041 | <i>SON</i> | 0,37 | 7,45E-04 | 2,37E-02 |
| 3840521 | <i>STK40</i> | 0,37 | 7,46E-04 | 2,38E-02 |
| 840246 | <i>HS.563150</i> | 0,36 | 7,59E-04 | 2,41E-02 |
| 5090563 | <i>PRKCB1</i> | 0,36 | 7,60E-04 | 2,41E-02 |
| 7200431 | <i>GABPB2</i> | 0,36 | 7,62E-04 | 2,41E-02 |
| 5910364 | <i>TYMS</i> | 0,36 | 7,70E-04 | 2,43E-02 |
| 3170273 | <i>FER1L3</i> | 0,36 | 7,75E-04 | 2,45E-02 |
| 6580372 | <i>ZFYVE27</i> | 0,36 | 7,77E-04 | 2,45E-02 |
| 4730025 | <i>LOC341457</i> | 0,36 | 7,79E-04 | 2,45E-02 |
| 360719 | <i>CD44</i> | 0,36 | 7,92E-04 | 2,48E-02 |
| 2570544 | <i>CCNH</i> | 0,36 | 7,96E-04 | 2,48E-02 |
| 110180 | <i>ARHGAP9</i> | 0,36 | 7,97E-04 | 2,48E-02 |
| 7380630 | <i>HS.524902</i> | 0,36 | 8,05E-04 | 2,50E-02 |
| 4040671 | <i>COL1A2</i> | 0,36 | 8,12E-04 | 2,52E-02 |
| 2600164 | <i>THBS2</i> | 0,36 | 8,12E-04 | 2,52E-02 |
| 4810324 | <i>LOC649942</i> | 0,36 | 8,20E-04 | 2,53E-02 |
| 2810315 | <i>S100A6</i> | 0,36 | 8,20E-04 | 2,53E-02 |
| 6480360 | <i>TLR8</i> | 0,36 | 8,28E-04 | 2,55E-02 |
| 3390092 | <i>PLEKHM2</i> | 0,36 | 8,31E-04 | 2,56E-02 |
| 540129 | <i>KDEL3</i> | 0,36 | 8,36E-04 | 2,57E-02 |

Hepatology

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| 3440487 | <i>DCUN1D5</i> | 0,36 | 8,43E-04 | 2,59E-02 |
| 4560484 | <i>DPP3</i> | 0,36 | 8,47E-04 | 2,60E-02 |
| 2060605 | <i>P2RX4</i> | 0,36 | 8,47E-04 | 2,60E-02 |
| 1340360 | <i>RCC2</i> | 0,36 | 8,48E-04 | 2,60E-02 |
| 2760544 | <i>PBX4</i> | 0,36 | 8,49E-04 | 2,60E-02 |
| 5050674 | <i>HS.159057</i> | 0,36 | 8,55E-04 | 2,61E-02 |
| 7380709 | <i>YWHAB</i> | 0,36 | 8,58E-04 | 2,62E-02 |
| 4200220 | <i>RNF4</i> | 0,36 | 8,62E-04 | 2,63E-02 |
| 6960037 | <i>EDC4</i> | 0,36 | 8,63E-04 | 2,63E-02 |
| 1010487 | <i>BTG2</i> | 0,36 | 8,65E-04 | 2,63E-02 |
| 4290279 | <i>ACLY</i> | 0,36 | 8,69E-04 | 2,64E-02 |
| 830035 | <i>ATG3</i> | 0,36 | 8,77E-04 | 2,66E-02 |
| 3440224 | <i>YRDC</i> | 0,36 | 8,79E-04 | 2,66E-02 |
| 290239 | <i>NAV2</i> | 0,36 | 8,79E-04 | 2,66E-02 |
| 6220075 | <i>GPR177</i> | 0,36 | 8,92E-04 | 2,69E-02 |
| 430309 | <i>C6ORF66</i> | 0,36 | 8,99E-04 | 2,70E-02 |
| 6180050 | <i>STK24</i> | 0,36 | 9,01E-04 | 2,71E-02 |
| 5310554 | <i>MPP1</i> | 0,36 | 9,10E-04 | 2,73E-02 |
| 7320301 | <i>CCR1</i> | 0,36 | 9,11E-04 | 2,73E-02 |
| 70730 | <i>GAS6</i> | 0,36 | 9,25E-04 | 2,76E-02 |
| 3360685 | <i>OSBPL9</i> | 0,36 | 9,26E-04 | 2,77E-02 |
| 7560632 | <i>ITK</i> | 0,36 | 9,29E-04 | 2,77E-02 |
| 3170162 | <i>PRNP</i> | 0,36 | 9,38E-04 | 2,79E-02 |
| 3800706 | <i>TM4SF19</i> | 0,36 | 9,49E-04 | 2,82E-02 |
| 620102 | <i>MALL</i> | 0,36 | 9,53E-04 | 2,83E-02 |
| 830168 | <i>CHFR</i> | 0,36 | 9,60E-04 | 2,84E-02 |
| 2600424 | <i>SAA1</i> | 0,36 | 9,62E-04 | 2,85E-02 |
| 2680079 | <i>OGFRL1</i> | 0,36 | 9,64E-04 | 2,85E-02 |
| 50446 | <i>INHBB</i> | 0,36 | 9,70E-04 | 2,86E-02 |
| 2710709 | <i>FCGR1B</i> | 0,36 | 9,71E-04 | 2,86E-02 |
| 2230672 | <i>LOC652463</i> | 0,36 | 9,80E-04 | 2,89E-02 |
| 4120437 | <i>RRS1</i> | 0,36 | 9,81E-04 | 2,89E-02 |

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|---------|------------------|------|----------|----------|
| 7210685 | <i>MKL1</i> | 0,36 | 9,99E-04 | 2,93E-02 |
| 5720113 | <i>C6ORF146</i> | 0,36 | 1,00E-03 | 2,93E-02 |
| 2070368 | <i>TUBB2C</i> | 0,36 | 1,01E-03 | 2,96E-02 |
| 4780128 | <i>ATF3</i> | 0,36 | 1,02E-03 | 2,97E-02 |
| 4220044 | <i>SLC15A3</i> | 0,36 | 1,02E-03 | 2,99E-02 |
| 2140528 | <i>GPR172A</i> | 0,36 | 1,03E-03 | 2,99E-02 |
| 2120445 | <i>BXDC2</i> | 0,36 | 1,03E-03 | 3,00E-02 |
| 360181 | <i>LAMA2</i> | 0,36 | 1,03E-03 | 3,00E-02 |
| 3140520 | <i>TMOD1</i> | 0,36 | 1,03E-03 | 3,00E-02 |
| 6860687 | <i>PYCARD</i> | 0,36 | 1,03E-03 | 3,00E-02 |
| 6400452 | <i>LOC643878</i> | 0,36 | 1,04E-03 | 3,01E-02 |
| 6450273 | <i>C1ORF41</i> | 0,36 | 1,04E-03 | 3,02E-02 |
| 840717 | <i>CTSL1</i> | 0,36 | 1,05E-03 | 3,03E-02 |
| 4290615 | <i>ZBTB33</i> | 0,36 | 1,05E-03 | 3,03E-02 |
| 4780072 | <i>TCEAL3</i> | 0,36 | 1,05E-03 | 3,04E-02 |
| 5260253 | <i>TYR</i> | 0,36 | 1,06E-03 | 3,06E-02 |
| 1820475 | <i>HS.232142</i> | 0,36 | 1,06E-03 | 3,06E-02 |
| 3290368 | <i>IGFBP1</i> | 0,35 | 1,07E-03 | 3,07E-02 |
| 7400470 | <i>HS.409514</i> | 0,35 | 1,07E-03 | 3,07E-02 |
| 5270097 | <i>LOC653853</i> | 0,35 | 1,07E-03 | 3,07E-02 |
| 3460132 | <i>PAQR4</i> | 0,35 | 1,07E-03 | 3,07E-02 |
| 2100400 | <i>TNFAIP2</i> | 0,35 | 1,08E-03 | 3,09E-02 |
| 2350112 | <i>PRAMEF10</i> | 0,35 | 1,09E-03 | 3,10E-02 |
| 2000500 | <i>SF3B14</i> | 0,35 | 1,10E-03 | 3,14E-02 |
| 7040301 | <i>PLEKHB2</i> | 0,35 | 1,11E-03 | 3,15E-02 |
| 1300369 | <i>LOC255783</i> | 0,35 | 1,11E-03 | 3,15E-02 |
| 3190382 | <i>SNORD48</i> | 0,35 | 1,11E-03 | 3,15E-02 |
| 2970195 | <i>DDX3X</i> | 0,35 | 1,12E-03 | 3,16E-02 |
| 6200014 | <i>ZNF165</i> | 0,35 | 1,12E-03 | 3,16E-02 |
| 4760747 | <i>TPST1</i> | 0,35 | 1,12E-03 | 3,16E-02 |
| 6290546 | <i>PURB</i> | 0,35 | 1,12E-03 | 3,17E-02 |
| 1050168 | <i>PI3</i> | 0,35 | 1,12E-03 | 3,18E-02 |

Hepatology

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| 1740451 | <i>IL1R2</i> | 0,35 | 1,13E-03 | 3,19E-02 |
| 3990292 | <i>KLF10</i> | 0,35 | 1,13E-03 | 3,19E-02 |
| 1510538 | <i>EPB41L3</i> | 0,35 | 1,13E-03 | 3,19E-02 |
| 6900630 | <i>ATP2B4</i> | 0,35 | 1,13E-03 | 3,20E-02 |
| 10133 | <i>SLC9A1</i> | 0,35 | 1,14E-03 | 3,21E-02 |
| 50301 | <i>EEF1E1</i> | 0,35 | 1,14E-03 | 3,21E-02 |
| 1510458 | <i>MYH9</i> | 0,35 | 1,15E-03 | 3,25E-02 |
| 6330538 | <i>MAD2L1BP</i> | 0,35 | 1,16E-03 | 3,25E-02 |
| 1940180 | <i>PSMB9</i> | 0,35 | 1,16E-03 | 3,26E-02 |
| 2480577 | <i>PDE4B</i> | 0,35 | 1,17E-03 | 3,27E-02 |
| 5570187 | <i>EDG3</i> | 0,35 | 1,17E-03 | 3,27E-02 |
| 1820722 | <i>APBB1IP</i> | 0,35 | 1,18E-03 | 3,29E-02 |
| 1110372 | <i>FAM130A1</i> | 0,35 | 1,19E-03 | 3,31E-02 |
| 4610102 | <i>TMEM123</i> | 0,35 | 1,19E-03 | 3,31E-02 |
| 6620037 | <i>ZNF460</i> | 0,35 | 1,19E-03 | 3,31E-02 |
| 4610201 | <i>SNORA10</i> | 0,35 | 1,19E-03 | 3,31E-02 |
| 870382 | <i>OR1L3</i> | 0,35 | 1,19E-03 | 3,32E-02 |
| 6350626 | <i>CCDC120</i> | 0,35 | 1,20E-03 | 3,32E-02 |
| 3800161 | <i>KRT7</i> | 0,35 | 1,21E-03 | 3,33E-02 |
| 4280113 | <i>NFKBIA</i> | 0,35 | 1,22E-03 | 3,37E-02 |
| 380398 | <i>LOC644096</i> | 0,35 | 1,23E-03 | 3,39E-02 |
| 2320564 | <i>WISP1</i> | 0,35 | 1,23E-03 | 3,39E-02 |
| 4880327 | <i>HS.547492</i> | 0,35 | 1,23E-03 | 3,39E-02 |
| 670386 | <i>ID1</i> | 0,35 | 1,24E-03 | 3,40E-02 |
| 5390161 | <i>DUSP5</i> | 0,35 | 1,24E-03 | 3,41E-02 |
| 2600682 | <i>SYTL3</i> | 0,35 | 1,25E-03 | 3,41E-02 |
| 4230132 | <i>ILK</i> | 0,35 | 1,25E-03 | 3,41E-02 |
| 3520056 | <i>ETNK1</i> | 0,35 | 1,25E-03 | 3,41E-02 |
| 6480091 | <i>DNAJA4</i> | 0,35 | 1,25E-03 | 3,42E-02 |
| 830593 | <i>VIM</i> | 0,35 | 1,26E-03 | 3,45E-02 |
| 1580088 | <i>HCST</i> | 0,35 | 1,27E-03 | 3,45E-02 |
| 2320041 | <i>TMEM189- UBE2V1</i> | 0,35 | 1,27E-03 | 3,45E-02 |

Hepatology

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| 6200753 | <i>SWAP70</i> | 0,35 | 1,27E-03 | 3,45E-02 |
| 7380139 | <i>SERINC3</i> | 0,35 | 1,27E-03 | 3,46E-02 |
| 5890450 | <i>ATP6V1E1</i> | 0,35 | 1,27E-03 | 3,46E-02 |
| 4150630 | <i>NKIRAS1</i> | 0,35 | 1,28E-03 | 3,46E-02 |
| 1430376 | <i>NIN</i> | 0,35 | 1,30E-03 | 3,51E-02 |
| 6330377 | <i>ATP6V0D1</i> | 0,35 | 1,30E-03 | 3,51E-02 |
| 4540241 | <i>C5ORF32</i> | 0,35 | 1,31E-03 | 3,52E-02 |
| 2480050 | <i>SOX7</i> | 0,35 | 1,31E-03 | 3,53E-02 |
| 5550037 | <i>CNN2</i> | 0,35 | 1,31E-03 | 3,53E-02 |
| 6860543 | <i>ATP6V1E1</i> | 0,35 | 1,31E-03 | 3,53E-02 |
| 6940768 | <i>MYBPC3</i> | 0,35 | 1,32E-03 | 3,54E-02 |
| 270168 | <i>HLA-DRA</i> | 0,35 | 1,32E-03 | 3,54E-02 |
| 4150438 | <i>LRRFIP2</i> | 0,35 | 1,33E-03 | 3,56E-02 |
| 2060037 | <i>ZBTB43</i> | 0,35 | 1,33E-03 | 3,56E-02 |
| 5570685 | <i>LOC400796</i> | 0,35 | 1,34E-03 | 3,58E-02 |
| 2570255 | <i>STARD13</i> | 0,35 | 1,35E-03 | 3,61E-02 |
| 4860243 | <i>SNRPB</i> | 0,35 | 1,35E-03 | 3,61E-02 |
| 1770097 | <i>HS.537553</i> | 0,35 | 1,36E-03 | 3,62E-02 |
| 1770364 | <i>APOLD1</i> | 0,35 | 1,37E-03 | 3,64E-02 |
| 4250398 | <i>STK4</i> | 0,35 | 1,37E-03 | 3,64E-02 |
| 5090632 | <i>LGALS9</i> | 0,35 | 1,38E-03 | 3,67E-02 |
| 4260044 | <i>SQSTM1</i> | 0,35 | 1,38E-03 | 3,67E-02 |
| 2490309 | <i>SH3TC1</i> | 0,35 | 1,39E-03 | 3,68E-02 |
| 5270619 | <i>FGD3</i> | 0,35 | 1,39E-03 | 3,68E-02 |
| 6770730 | <i>GSTO1</i> | 0,35 | 1,40E-03 | 3,70E-02 |
| 730156 | <i>ICAM2</i> | 0,35 | 1,41E-03 | 3,72E-02 |
| 4610376 | <i>FLJ11235</i> | 0,35 | 1,42E-03 | 3,73E-02 |
| 3310021 | <i>HS.572512</i> | 0,35 | 1,42E-03 | 3,73E-02 |
| 5700739 | <i>LARP7</i> | 0,35 | 1,42E-03 | 3,73E-02 |
| 5690619 | <i>HS.564389</i> | 0,35 | 1,42E-03 | 3,73E-02 |
| 6510689 | <i>HABP4</i> | 0,35 | 1,42E-03 | 3,73E-02 |
| 4290497 | <i>HS.559948</i> | 0,35 | 1,42E-03 | 3,74E-02 |

Hepatology

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| 630356 | <i>DAZAP2</i> | 0,35 | 1,43E-03 | 3,75E-02 |
| 7650296 | <i>DCN</i> | 0,35 | 1,43E-03 | 3,75E-02 |
| 6510768 | <i>LOC651481</i> | 0,35 | 1,43E-03 | 3,75E-02 |
| 2510195 | <i>LOC441249</i> | 0,35 | 1,44E-03 | 3,76E-02 |
| 1820681 | <i>DPEP2</i> | 0,35 | 1,45E-03 | 3,77E-02 |
| 4590020 | <i>YOD1</i> | 0,35 | 1,45E-03 | 3,78E-02 |
| 4860546 | <i>CTHRC1</i> | 0,35 | 1,47E-03 | 3,82E-02 |
| 4050722 | <i>HS.571940</i> | 0,35 | 1,47E-03 | 3,82E-02 |
| 3190452 | <i>DNAJB11</i> | 0,35 | 1,47E-03 | 3,82E-02 |
| 1820053 | <i>SLC43A2</i> | 0,35 | 1,47E-03 | 3,82E-02 |
| 4050209 | <i>DCTN6</i> | 0,35 | 1,48E-03 | 3,83E-02 |
| 520255 | <i>TUBB6</i> | 0,35 | 1,48E-03 | 3,83E-02 |
| 6100136 | <i>CASP4</i> | 0,35 | 1,48E-03 | 3,83E-02 |
| 1410181 | <i>SAMSN1</i> | 0,35 | 1,48E-03 | 3,83E-02 |
| 520470 | <i>NLRP12</i> | 0,35 | 1,48E-03 | 3,83E-02 |
| 4200008 | <i>ATG2A</i> | 0,35 | 1,49E-03 | 3,84E-02 |
| 6280152 | <i>UTP11L</i> | 0,35 | 1,50E-03 | 3,87E-02 |
| 780528 | <i>CKS2</i> | 0,34 | 1,51E-03 | 3,87E-02 |
| 6400243 | <i>ABLIM1</i> | 0,34 | 1,51E-03 | 3,89E-02 |
| 2140286 | <i>HS.578059</i> | 0,34 | 1,52E-03 | 3,90E-02 |
| 1850296 | <i>FLJ43663</i> | 0,34 | 1,53E-03 | 3,93E-02 |
| 3710553 | <i>SMOX</i> | 0,34 | 1,53E-03 | 3,93E-02 |
| 1300685 | <i>LOC653249</i> | 0,34 | 1,54E-03 | 3,94E-02 |
| 2810468 | <i>SSH2</i> | 0,34 | 1,55E-03 | 3,96E-02 |
| 2940373 | <i>TACC1</i> | 0,34 | 1,55E-03 | 3,96E-02 |
| 6650687 | <i>PIGA</i> | 0,34 | 1,58E-03 | 4,00E-02 |
| 6370377 | <i>C19ORF12</i> | 0,34 | 1,59E-03 | 4,02E-02 |
| 3830647 | <i>VPS37B</i> | 0,34 | 1,60E-03 | 4,02E-02 |
| 3940390 | <i>TBXAS1</i> | 0,34 | 1,60E-03 | 4,02E-02 |
| 6250129 | <i>TNIP2</i> | 0,34 | 1,61E-03 | 4,06E-02 |
| 730577 | <i>CPXM1</i> | 0,34 | 1,62E-03 | 4,06E-02 |
| 3780408 | <i>RAB43</i> | 0,34 | 1,62E-03 | 4,06E-02 |

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| 7560520 | <i>HS.348844</i> | 0,34 | 1,62E-03 | 4,07E-02 |
| 7570273 | <i>HS.368591</i> | 0,34 | 1,63E-03 | 4,07E-02 |
| 4010692 | <i>HS.569948</i> | 0,34 | 1,63E-03 | 4,08E-02 |
| 270068 | <i>SMOX</i> | 0,34 | 1,63E-03 | 4,08E-02 |
| 3360717 | <i>PIK3CD</i> | 0,34 | 1,64E-03 | 4,09E-02 |
| 3360546 | <i>UBE2W</i> | 0,34 | 1,64E-03 | 4,09E-02 |
| 730685 | <i>RGS19</i> | 0,34 | 1,64E-03 | 4,09E-02 |
| 3120520 | <i>GABARAPL2</i> | 0,34 | 1,64E-03 | 4,10E-02 |
| 6250243 | <i>HS.542667</i> | 0,34 | 1,65E-03 | 4,13E-02 |
| 4590372 | <i>VDAC1</i> | 0,34 | 1,66E-03 | 4,14E-02 |
| 780332 | <i>FAM3C</i> | 0,34 | 1,67E-03 | 4,15E-02 |
| 4860315 | <i>TESK1</i> | 0,34 | 1,67E-03 | 4,15E-02 |
| 1990390 | <i>RAB3IP</i> | 0,34 | 1,68E-03 | 4,17E-02 |
| 1470669 | <i>TNC</i> | 0,34 | 1,69E-03 | 4,18E-02 |
| 5360156 | <i>IFITM1</i> | 0,34 | 1,69E-03 | 4,18E-02 |
| 3780053 | <i>PALLD</i> | 0,34 | 1,69E-03 | 4,18E-02 |
| 5570377 | <i>HS.563743</i> | 0,34 | 1,69E-03 | 4,18E-02 |
| 430102 | <i>NTRK2</i> | 0,34 | 1,70E-03 | 4,19E-02 |
| 3800139 | <i>HEXB</i> | 0,34 | 1,70E-03 | 4,19E-02 |
| 1710240 | <i>DNAJB14</i> | 0,34 | 1,71E-03 | 4,20E-02 |
| 1230754 | <i>POR</i> | 0,34 | 1,71E-03 | 4,22E-02 |
| 2230433 | <i>TMEM154</i> | 0,34 | 1,72E-03 | 4,23E-02 |
| 2510575 | <i>ARMC8</i> | 0,34 | 1,73E-03 | 4,26E-02 |
| 4200343 | <i>CYFIP1</i> | 0,34 | 1,76E-03 | 4,30E-02 |
| 6290519 | <i>STOM</i> | 0,34 | 1,76E-03 | 4,31E-02 |
| 1990253 | <i>TDG</i> | 0,34 | 1,77E-03 | 4,32E-02 |
| 2570022 | <i>CLEC4A</i> | 0,34 | 1,79E-03 | 4,37E-02 |
| 4730706 | <i>HS.565713</i> | 0,34 | 1,80E-03 | 4,39E-02 |
| 3450402 | <i>PAK2</i> | 0,34 | 1,81E-03 | 4,39E-02 |
| 1230292 | <i>MED30</i> | 0,34 | 1,82E-03 | 4,41E-02 |
| 2640369 | <i>VIL2</i> | 0,34 | 1,82E-03 | 4,41E-02 |
| 3460754 | <i>AXIN1</i> | 0,34 | 1,82E-03 | 4,42E-02 |

Hepatology

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| 3850440 | <i>FCER1G</i> | 0,34 | 1,82E-03 | 4,42E-02 |
| 7380725 | <i>GRB2</i> | 0,34 | 1,82E-03 | 4,42E-02 |
| 3870630 | <i>ATP6V1F</i> | 0,34 | 1,83E-03 | 4,43E-02 |
| 1030133 | <i>C14ORF140</i> | 0,34 | 1,84E-03 | 4,44E-02 |
| 4250328 | <i>CHSY3</i> | 0,34 | 1,84E-03 | 4,44E-02 |
| 5820037 | <i>MCART6</i> | 0,34 | 1,85E-03 | 4,45E-02 |
| 1070253 | <i>FAM105B</i> | 0,34 | 1,85E-03 | 4,45E-02 |
| 2970674 | <i>LEO1</i> | 0,34 | 1,86E-03 | 4,46E-02 |
| 130681 | <i>RNASE6</i> | 0,34 | 1,87E-03 | 4,48E-02 |
| 1940162 | <i>GBP2</i> | 0,34 | 1,89E-03 | 4,51E-02 |
| 5910195 | <i>RBM18</i> | 0,34 | 1,90E-03 | 4,53E-02 |
| 6550603 | <i>HMGCR</i> | 0,34 | 1,92E-03 | 4,57E-02 |
| 20201 | <i>FUBP1</i> | 0,34 | 1,93E-03 | 4,58E-02 |
| 360192 | <i>INSIG1</i> | 0,34 | 1,93E-03 | 4,58E-02 |
| 3120743 | <i>LAMP2</i> | 0,34 | 1,95E-03 | 4,61E-02 |
| 1770593 | <i>CH25H</i> | 0,34 | 1,95E-03 | 4,62E-02 |
| 3420154 | <i>NLRP3</i> | 0,34 | 1,96E-03 | 4,62E-02 |
| 7040176 | <i>C20ORF24</i> | 0,34 | 1,97E-03 | 4,64E-02 |
| 2750044 | <i>ZNF280B</i> | 0,34 | 1,97E-03 | 4,64E-02 |
| 5670431 | <i>HS.135735</i> | 0,34 | 1,97E-03 | 4,64E-02 |
| 3520288 | <i>RCE1</i> | 0,34 | 1,98E-03 | 4,65E-02 |
| 160706 | <i>HS.529743</i> | 0,34 | 1,98E-03 | 4,65E-02 |
| 3370487 | <i>HNRNPAB</i> | 0,34 | 2,02E-03 | 4,72E-02 |
| 1990630 | <i>TRIB3</i> | 0,34 | 2,03E-03 | 4,73E-02 |
| 5340148 | <i>TMEM188</i> | 0,34 | 2,04E-03 | 4,75E-02 |
| 840068 | <i>C3AR1</i> | 0,34 | 2,04E-03 | 4,76E-02 |
| 70414 | <i>HS.564460</i> | 0,34 | 2,05E-03 | 4,77E-02 |
| 3610193 | <i>SOX17</i> | 0,34 | 2,05E-03 | 4,77E-02 |
| 5420091 | <i>LTB</i> | 0,34 | 2,05E-03 | 4,78E-02 |
| 6650064 | <i>SIGLEC5</i> | 0,34 | 2,07E-03 | 4,81E-02 |
| 4890608 | <i>LOC401398</i> | 0,33 | 2,10E-03 | 4,85E-02 |
| 10747 | <i>DOCK2</i> | 0,33 | 2,10E-03 | 4,86E-02 |

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| 4120563 | <i>DST</i> | 0,33 | 2,11E-03 | 4,87E-02 |
| 4900634 | <i>TM4SF4</i> | 0,33 | 2,12E-03 | 4,88E-02 |
| 70100 | <i>UGT3A1</i> | 0,33 | 2,13E-03 | 4,91E-02 |
| 2810411 | <i>ANXA2P3</i> | 0,33 | 2,14E-03 | 4,92E-02 |
| 1170170 | <i>STC2</i> | 0,33 | 2,14E-03 | 4,92E-02 |
| 1850041 | <i>DPM2</i> | 0,33 | 2,15E-03 | 4,94E-02 |
| 3390239 | <i>LOC651158</i> | 0,33 | 2,16E-03 | 4,95E-02 |
| 3940477 | <i>TAP2</i> | 0,33 | 2,16E-03 | 4,95E-02 |
| 4890241 | <i>GPR56</i> | 0,33 | 2,16E-03 | 4,95E-02 |
| 6200064 | <i>CECR1</i> | 0,33 | 2,17E-03 | 4,95E-02 |
| 3990661 | <i>C14ORF24</i> | 0,33 | 2,18E-03 | 4,98E-02 |
| 770575 | <i>TSPAN32</i> | 0,33 | 2,19E-03 | 4,99E-02 |
| 2570725 | <i>PPCS</i> | -0,33 | 2,19E-03 | 4,99E-02 |
| 6420446 | <i>CMPK1</i> | -0,33 | 2,17E-03 | 4,97E-02 |
| 1940072 | <i>RAPGEFL1</i> | -0,33 | 2,17E-03 | 4,95E-02 |
| 3420450 | <i>KIAA0240</i> | -0,33 | 2,16E-03 | 4,95E-02 |
| 6250154 | <i>LZTFL1</i> | -0,33 | 2,15E-03 | 4,93E-02 |
| 3710634 | <i>LOC642644</i> | -0,33 | 2,14E-03 | 4,92E-02 |
| 3440195 | <i>GFM1</i> | -0,33 | 2,14E-03 | 4,92E-02 |
| 1510615 | <i>CENTG3</i> | -0,33 | 2,14E-03 | 4,91E-02 |
| 3180176 | <i>SYNJ2BP</i> | -0,33 | 2,13E-03 | 4,91E-02 |
| 1510465 | <i>LOC400713</i> | -0,33 | 2,13E-03 | 4,90E-02 |
| 4640132 | <i>C8ORF45</i> | -0,33 | 2,13E-03 | 4,90E-02 |
| 6900458 | <i>LOC728481</i> | -0,33 | 2,12E-03 | 4,88E-02 |
| 2760156 | <i>FAM63A</i> | -0,33 | 2,12E-03 | 4,88E-02 |
| 5130703 | <i>NLP</i> | -0,33 | 2,11E-03 | 4,88E-02 |
| 5720598 | <i>MYO1B</i> | -0,33 | 2,10E-03 | 4,85E-02 |
| 3310026 | <i>FIGLA</i> | -0,34 | 2,10E-03 | 4,85E-02 |
| 2760121 | <i>ADHFE1</i> | -0,34 | 2,09E-03 | 4,84E-02 |
| 2490452 | <i>GAA</i> | -0,34 | 2,09E-03 | 4,84E-02 |
| 5870019 | <i>HSPA12A</i> | -0,34 | 2,08E-03 | 4,82E-02 |
| 380626 | <i>HCN4</i> | -0,34 | 2,07E-03 | 4,81E-02 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 1450707 | <i>RING1</i> | -0,34 | 2,07E-03 | 4,81E-02 |
| 6400471 | <i>HS.563568</i> | -0,34 | 2,07E-03 | 4,80E-02 |
| 4570341 | <i>C8ORF46</i> | -0,34 | 2,06E-03 | 4,79E-02 |
| 6510601 | <i>SHARPIN</i> | -0,34 | 2,04E-03 | 4,75E-02 |
| 1190553 | <i>THSD7B</i> | -0,34 | 2,04E-03 | 4,75E-02 |
| 1410035 | <i>RPS6</i> | -0,34 | 2,02E-03 | 4,72E-02 |
| 3850142 | <i>KIF1C</i> | -0,34 | 2,02E-03 | 4,72E-02 |
| 3120750 | <i>SEMA6C</i> | -0,34 | 2,02E-03 | 4,72E-02 |
| 1230242 | <i>UBE2L3</i> | -0,34 | 2,02E-03 | 4,71E-02 |
| 3140553 | <i>SAR1A</i> | -0,34 | 2,02E-03 | 4,71E-02 |
| 4180441 | <i>NDUFA4</i> | -0,34 | 2,01E-03 | 4,69E-02 |
| 6110044 | <i>CPS1</i> | -0,34 | 2,00E-03 | 4,69E-02 |
| 3170392 | <i>HS.573834</i> | -0,34 | 2,00E-03 | 4,69E-02 |
| 1570736 | <i>PRPF40B</i> | -0,34 | 2,00E-03 | 4,68E-02 |
| 5390450 | <i>TSPAN2</i> | -0,34 | 2,00E-03 | 4,68E-02 |
| 7100753 | <i>FOXD4L1</i> | -0,34 | 1,99E-03 | 4,66E-02 |
| 4250753 | <i>TSPAN33</i> | -0,34 | 1,98E-03 | 4,65E-02 |
| 4670577 | <i>TMEM17</i> | -0,34 | 1,98E-03 | 4,65E-02 |
| 5360687 | <i>PKD2</i> | -0,34 | 1,98E-03 | 4,65E-02 |
| 3610367 | <i>ZIM2</i> | -0,34 | 1,98E-03 | 4,65E-02 |
| 1450088 | <i>HS.562875</i> | -0,34 | 1,97E-03 | 4,64E-02 |
| 3870142 | <i>HS.563862</i> | -0,34 | 1,97E-03 | 4,64E-02 |
| 4760326 | <i>CTPS2</i> | -0,34 | 1,96E-03 | 4,63E-02 |
| 6110487 | <i>PACSIN3</i> | -0,34 | 1,96E-03 | 4,62E-02 |
| 6650692 | <i>ISOC2</i> | -0,34 | 1,95E-03 | 4,61E-02 |
| 6590403 | <i>LOC390811</i> | -0,34 | 1,95E-03 | 4,61E-02 |
| 2470743 | <i>KMO</i> | -0,34 | 1,95E-03 | 4,61E-02 |
| 7510470 | <i>CREB1</i> | -0,34 | 1,95E-03 | 4,61E-02 |
| 2600204 | <i>SACM1L</i> | -0,34 | 1,95E-03 | 4,61E-02 |
| 3180402 | <i>HDDC2</i> | -0,34 | 1,94E-03 | 4,61E-02 |
| 3290341 | <i>AIFM1</i> | -0,34 | 1,94E-03 | 4,60E-02 |
| 2570408 | <i>LOC649044</i> | -0,34 | 1,94E-03 | 4,60E-02 |

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|---------|------------------|-------|----------|----------|
| 3890170 | <i>MLLT10</i> | -0,34 | 1,94E-03 | 4,60E-02 |
| 1780682 | <i>HYDIN</i> | -0,34 | 1,93E-03 | 4,58E-02 |
| 2070553 | <i>TENC1</i> | -0,34 | 1,93E-03 | 4,58E-02 |
| 1510564 | <i>TMEM4</i> | -0,34 | 1,93E-03 | 4,58E-02 |
| 3290242 | <i>PDS5A</i> | -0,34 | 1,92E-03 | 4,57E-02 |
| 5820403 | <i>CLK4</i> | -0,34 | 1,91E-03 | 4,55E-02 |
| 7040241 | <i>OAT</i> | -0,34 | 1,90E-03 | 4,54E-02 |
| 2230598 | <i>IGFALS</i> | -0,34 | 1,90E-03 | 4,53E-02 |
| 1240390 | <i>LOC644596</i> | -0,34 | 1,90E-03 | 4,53E-02 |
| 6400437 | <i>RPL32</i> | -0,34 | 1,90E-03 | 4,53E-02 |
| 1190246 | <i>FBXL10</i> | -0,34 | 1,89E-03 | 4,53E-02 |
| 7210497 | <i>NUAK1</i> | -0,34 | 1,89E-03 | 4,53E-02 |
| 520324 | <i>REEP5</i> | -0,34 | 1,89E-03 | 4,51E-02 |
| 670176 | <i>ZNF618</i> | -0,34 | 1,89E-03 | 4,51E-02 |
| 2480075 | <i>ATF7IP2</i> | -0,34 | 1,88E-03 | 4,50E-02 |
| 4260364 | <i>RNUXA</i> | -0,34 | 1,86E-03 | 4,46E-02 |
| 3940026 | <i>HEBP2</i> | -0,34 | 1,86E-03 | 4,46E-02 |
| 1510452 | <i>C8ORF59</i> | -0,34 | 1,85E-03 | 4,45E-02 |
| 4250372 | <i>KLHDC3</i> | -0,34 | 1,85E-03 | 4,45E-02 |
| 5890168 | <i>TMLHE</i> | -0,34 | 1,85E-03 | 4,45E-02 |
| 4760431 | <i>LOC136143</i> | -0,34 | 1,85E-03 | 4,45E-02 |
| 1580608 | <i>SEMA3E</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 7510600 | <i>C12ORF30</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 460564 | <i>FAM73A</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 4610289 | <i>MTM</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 2030433 | <i>HSCB</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 2260215 | <i>CASP3</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 580681 | <i>ZNF564</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 2370017 | <i>MCM8</i> | -0,34 | 1,84E-03 | 4,44E-02 |
| 110707 | <i>ANKAR</i> | -0,34 | 1,82E-03 | 4,41E-02 |
| 3190348 | <i>LOC440927</i> | -0,34 | 1,82E-03 | 4,41E-02 |
| 5910441 | <i>HS.552502</i> | -0,34 | 1,80E-03 | 4,39E-02 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 3170195 | <i>FLJ10404</i> | -0,34 | 1,80E-03 | 4,39E-02 |
| 1110167 | <i>TATDN1</i> | -0,34 | 1,80E-03 | 4,38E-02 |
| 4830121 | <i>WDR27</i> | -0,34 | 1,79E-03 | 4,37E-02 |
| 4810661 | <i>KIAA0408</i> | -0,34 | 1,79E-03 | 4,37E-02 |
| 1500747 | <i>CBX7</i> | -0,34 | 1,79E-03 | 4,37E-02 |
| 6060209 | <i>GNE</i> | -0,34 | 1,77E-03 | 4,33E-02 |
| 4220731 | <i>P4HA1</i> | -0,34 | 1,77E-03 | 4,33E-02 |
| 4220307 | <i>LOC647673</i> | -0,34 | 1,77E-03 | 4,32E-02 |
| 5310494 | <i>LOC440733</i> | -0,34 | 1,76E-03 | 4,30E-02 |
| 4280300 | <i>DIS3L</i> | -0,34 | 1,76E-03 | 4,30E-02 |
| 7040717 | <i>AASDHPPT</i> | -0,34 | 1,75E-03 | 4,30E-02 |
| 6660414 | <i>PRKAG2</i> | -0,34 | 1,74E-03 | 4,26E-02 |
| 5220195 | <i>UQCRC2</i> | -0,34 | 1,73E-03 | 4,24E-02 |
| 1400397 | <i>TMEM101</i> | -0,34 | 1,73E-03 | 4,24E-02 |
| 1090682 | <i>FRK</i> | -0,34 | 1,72E-03 | 4,23E-02 |
| 4810739 | <i>OCIAD1</i> | -0,34 | 1,72E-03 | 4,23E-02 |
| 6560286 | <i>LOC649856</i> | -0,34 | 1,71E-03 | 4,21E-02 |
| 1410427 | <i>ZRANB1</i> | -0,34 | 1,71E-03 | 4,21E-02 |
| 5340703 | <i>KRCC1</i> | -0,34 | 1,70E-03 | 4,20E-02 |
| 2100341 | <i>C14ORF2</i> | -0,34 | 1,69E-03 | 4,18E-02 |
| 3060398 | <i>PTPRF</i> | -0,34 | 1,69E-03 | 4,18E-02 |
| 4880068 | <i>RNF123</i> | -0,34 | 1,69E-03 | 4,18E-02 |
| 70102 | <i>ALDH7A1</i> | -0,34 | 1,68E-03 | 4,16E-02 |
| 6180463 | <i>CNNM3</i> | -0,34 | 1,68E-03 | 4,16E-02 |
| 1230600 | <i>LOC651064</i> | -0,34 | 1,68E-03 | 4,16E-02 |
| 6380639 | <i>RPLP1</i> | -0,34 | 1,68E-03 | 4,16E-02 |
| 3120647 | <i>GPER</i> | -0,34 | 1,67E-03 | 4,16E-02 |
| 360747 | <i>COASY</i> | -0,34 | 1,67E-03 | 4,16E-02 |
| 6660332 | <i>HYPK</i> | -0,34 | 1,67E-03 | 4,16E-02 |
| 70068 | <i>ACBD4</i> | -0,34 | 1,66E-03 | 4,15E-02 |
| 20017 | <i>LOC650128</i> | -0,34 | 1,66E-03 | 4,13E-02 |
| 4180292 | <i>ACSM3</i> | -0,34 | 1,64E-03 | 4,09E-02 |

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|---------|------------------|-------|----------|----------|
| 2320403 | <i>ABCA11</i> | -0,34 | 1,62E-03 | 4,07E-02 |
| 6280286 | <i>ADAMTSL3</i> | -0,34 | 1,62E-03 | 4,07E-02 |
| 1010739 | <i>C3ORF15</i> | -0,34 | 1,62E-03 | 4,06E-02 |
| 2340452 | <i>RN7SL1</i> | -0,34 | 1,61E-03 | 4,04E-02 |
| 2970687 | <i>NUDT13</i> | -0,34 | 1,60E-03 | 4,04E-02 |
| 2100576 | <i>ARAF</i> | -0,34 | 1,60E-03 | 4,04E-02 |
| 5820386 | <i>AIRE</i> | -0,34 | 1,59E-03 | 4,02E-02 |
| 5310736 | <i>C3ORF28</i> | -0,34 | 1,59E-03 | 4,02E-02 |
| 670594 | <i>C2</i> | -0,34 | 1,59E-03 | 4,02E-02 |
| 5340546 | <i>ARPC2</i> | -0,34 | 1,58E-03 | 4,00E-02 |
| 3520746 | <i>MTTP</i> | -0,34 | 1,58E-03 | 4,00E-02 |
| 1190504 | <i>NEK3</i> | -0,34 | 1,58E-03 | 4,00E-02 |
| 7380707 | <i>ZFAND1</i> | -0,34 | 1,58E-03 | 4,00E-02 |
| 5810048 | <i>HS.584250</i> | -0,34 | 1,58E-03 | 4,00E-02 |
| 5050470 | <i>GHR</i> | -0,34 | 1,58E-03 | 4,00E-02 |
| 7050561 | <i>ZNF259</i> | -0,34 | 1,58E-03 | 4,00E-02 |
| 460333 | <i>SPAST</i> | -0,34 | 1,57E-03 | 3,99E-02 |
| 3120075 | <i>TIA1</i> | -0,34 | 1,57E-03 | 3,99E-02 |
| 1430280 | <i>CEBPA</i> | -0,34 | 1,57E-03 | 3,99E-02 |
| 5870220 | <i>KCNK2</i> | -0,34 | 1,57E-03 | 3,98E-02 |
| 2680600 | <i>CCL16</i> | -0,34 | 1,56E-03 | 3,98E-02 |
| 2100750 | <i>FKBP4</i> | -0,34 | 1,56E-03 | 3,98E-02 |
| 7560543 | <i>MOCS1</i> | -0,34 | 1,56E-03 | 3,97E-02 |
| 1230646 | <i>THUMPD2</i> | -0,34 | 1,56E-03 | 3,97E-02 |
| 4850543 | <i>TMEM151A</i> | -0,34 | 1,56E-03 | 3,97E-02 |
| 2970026 | <i>ZNF622</i> | -0,34 | 1,55E-03 | 3,96E-02 |
| 1190647 | <i>ZNF323</i> | -0,34 | 1,55E-03 | 3,96E-02 |
| 7570025 | <i>C11ORF45</i> | -0,34 | 1,55E-03 | 3,96E-02 |
| 1780010 | <i>HTR1D</i> | -0,34 | 1,54E-03 | 3,95E-02 |
| 2510239 | <i>TRIM56</i> | -0,34 | 1,54E-03 | 3,94E-02 |
| 6040356 | <i>KIAA1543</i> | -0,34 | 1,54E-03 | 3,94E-02 |
| 1070070 | <i>NPIP</i> | -0,34 | 1,52E-03 | 3,91E-02 |

Hepatology

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|---------|-----------|-------|----------|----------|
| 2470296 | ZSCAN16 | -0,34 | 1,52E-03 | 3,91E-02 |
| 1500132 | SLC35A5 | -0,34 | 1,52E-03 | 3,90E-02 |
| 3420521 | C9 | -0,34 | 1,51E-03 | 3,89E-02 |
| 7050524 | LOC650346 | -0,34 | 1,51E-03 | 3,87E-02 |
| 1240544 | HS.576735 | -0,34 | 1,50E-03 | 3,87E-02 |
| 6980435 | ZNF232 | -0,35 | 1,50E-03 | 3,87E-02 |
| 770687 | FASTK | -0,35 | 1,50E-03 | 3,86E-02 |
| 5490703 | POLR3GL | -0,35 | 1,50E-03 | 3,86E-02 |
| 1170477 | GPRC5C | -0,35 | 1,48E-03 | 3,83E-02 |
| 3180196 | PTCD1 | -0,35 | 1,48E-03 | 3,83E-02 |
| 6580593 | PPP1R3C | -0,35 | 1,47E-03 | 3,82E-02 |
| 7150184 | TDRD1 | -0,35 | 1,47E-03 | 3,82E-02 |
| 3290630 | SERPINA5 | -0,35 | 1,45E-03 | 3,78E-02 |
| 4070086 | HAAO | -0,35 | 1,45E-03 | 3,78E-02 |
| 2120463 | PKIG | -0,35 | 1,45E-03 | 3,77E-02 |
| 150672 | KLHL7 | -0,35 | 1,44E-03 | 3,77E-02 |
| 4780768 | FAM8A1 | -0,35 | 1,44E-03 | 3,77E-02 |
| 3190280 | F7 | -0,35 | 1,44E-03 | 3,76E-02 |
| 380487 | HS.132249 | -0,35 | 1,44E-03 | 3,76E-02 |
| 1090008 | VTN | -0,35 | 1,43E-03 | 3,74E-02 |
| 1440575 | OSBPL7 | -0,35 | 1,43E-03 | 3,74E-02 |
| 2900470 | LOC388532 | -0,35 | 1,43E-03 | 3,74E-02 |
| 4050463 | LOC219854 | -0,35 | 1,42E-03 | 3,73E-02 |
| 4040114 | TEF | -0,35 | 1,42E-03 | 3,73E-02 |
| 4220161 | ZNF518A | -0,35 | 1,41E-03 | 3,73E-02 |
| 870441 | PPARA | -0,35 | 1,41E-03 | 3,71E-02 |
| 2060707 | GPR125 | -0,35 | 1,39E-03 | 3,68E-02 |
| 520403 | PRO1853 | -0,35 | 1,39E-03 | 3,68E-02 |
| 1660184 | GPR88 | -0,35 | 1,39E-03 | 3,68E-02 |
| 3460091 | SMC6 | -0,35 | 1,39E-03 | 3,68E-02 |
| 4920136 | MKKS | -0,35 | 1,39E-03 | 3,68E-02 |
| 1470711 | TRPV1 | -0,35 | 1,38E-03 | 3,66E-02 |

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|---------|------------------|-------|----------|----------|
| 2140167 | <i>MOSC2</i> | -0,35 | 1,38E-03 | 3,66E-02 |
| 4810356 | <i>HS.542116</i> | -0,35 | 1,37E-03 | 3,64E-02 |
| 4290189 | <i>P8</i> | -0,35 | 1,37E-03 | 3,64E-02 |
| 1740204 | <i>THUMPD1</i> | -0,35 | 1,37E-03 | 3,64E-02 |
| 1050050 | <i>C9ORF45</i> | -0,35 | 1,36E-03 | 3,63E-02 |
| 2060440 | <i>MAFB</i> | -0,35 | 1,36E-03 | 3,63E-02 |
| 510100 | <i>CBY1</i> | -0,35 | 1,36E-03 | 3,63E-02 |
| 7000259 | <i>DDX17</i> | -0,35 | 1,34E-03 | 3,58E-02 |
| 3190735 | <i>SSNA1</i> | -0,35 | 1,34E-03 | 3,58E-02 |
| 3120608 | <i>ERBB3</i> | -0,35 | 1,34E-03 | 3,58E-02 |
| 2760706 | <i>C16ORF48</i> | -0,35 | 1,34E-03 | 3,58E-02 |
| 2650102 | <i>ZNF792</i> | -0,35 | 1,34E-03 | 3,58E-02 |
| 2690300 | <i>LOC730432</i> | -0,35 | 1,32E-03 | 3,54E-02 |
| 240736 | <i>TSPAN6</i> | -0,35 | 1,31E-03 | 3,53E-02 |
| 4250427 | <i>ZNF493</i> | -0,35 | 1,31E-03 | 3,53E-02 |
| 6380678 | <i>RHO</i> | -0,35 | 1,30E-03 | 3,52E-02 |
| 3190746 | <i>PAH</i> | -0,35 | 1,30E-03 | 3,51E-02 |
| 1450646 | <i>HSD17B13</i> | -0,35 | 1,30E-03 | 3,51E-02 |
| 1190707 | <i>PRPF31</i> | -0,35 | 1,29E-03 | 3,50E-02 |
| 7560189 | <i>RNF5P1</i> | -0,35 | 1,28E-03 | 3,47E-02 |
| 730711 | <i>LOC644733</i> | -0,35 | 1,28E-03 | 3,47E-02 |
| 1030053 | <i>MZF1</i> | -0,35 | 1,28E-03 | 3,46E-02 |
| 3400685 | <i>OGDHL</i> | -0,35 | 1,27E-03 | 3,45E-02 |
| 3450040 | <i>CCBL1</i> | -0,35 | 1,27E-03 | 3,45E-02 |
| 6760152 | <i>HS.539751</i> | -0,35 | 1,27E-03 | 3,45E-02 |
| 4150753 | <i>FKBP14</i> | -0,35 | 1,27E-03 | 3,45E-02 |
| 5260639 | <i>ZNF330</i> | -0,35 | 1,26E-03 | 3,44E-02 |
| 6960576 | <i>WDR23</i> | -0,35 | 1,25E-03 | 3,41E-02 |
| 5700220 | <i>DAPK1</i> | -0,35 | 1,25E-03 | 3,41E-02 |
| 3170431 | <i>LRCH4</i> | -0,35 | 1,24E-03 | 3,41E-02 |
| 7380192 | <i>SEC14L4</i> | -0,35 | 1,24E-03 | 3,41E-02 |
| 5900605 | <i>DCLRE1A</i> | -0,35 | 1,23E-03 | 3,39E-02 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 3710450 | <i>NR1H3</i> | -0,35 | 1,23E-03 | 3,38E-02 |
| 2260521 | <i>C1ORF25</i> | -0,35 | 1,23E-03 | 3,38E-02 |
| 2370309 | <i>HS.148519</i> | -0,35 | 1,22E-03 | 3,37E-02 |
| 5820333 | <i>RPUSD2</i> | -0,35 | 1,22E-03 | 3,37E-02 |
| 2640544 | <i>ASS1</i> | -0,35 | 1,22E-03 | 3,36E-02 |
| 4850092 | <i>ACSM5</i> | -0,35 | 1,22E-03 | 3,36E-02 |
| 10592 | <i>EFCAB4A</i> | -0,35 | 1,21E-03 | 3,34E-02 |
| 3120678 | <i>CHRNA4</i> | -0,35 | 1,21E-03 | 3,34E-02 |
| 1770484 | <i>CYP46A1</i> | -0,35 | 1,20E-03 | 3,33E-02 |
| 1740280 | <i>NIT1</i> | -0,35 | 1,20E-03 | 3,33E-02 |
| 3400202 | <i>GPATCH1</i> | -0,35 | 1,20E-03 | 3,32E-02 |
| 4610681 | <i>LOC653658</i> | -0,35 | 1,20E-03 | 3,32E-02 |
| 5810477 | <i>SERINC5</i> | -0,35 | 1,19E-03 | 3,32E-02 |
| 6940053 | <i>NTNG1</i> | -0,35 | 1,19E-03 | 3,31E-02 |
| 7100544 | <i>HS.443185</i> | -0,35 | 1,19E-03 | 3,31E-02 |
| 6760673 | <i>SC65</i> | -0,35 | 1,19E-03 | 3,31E-02 |
| 3420452 | <i>TSPAN13</i> | -0,35 | 1,19E-03 | 3,31E-02 |
| 5090253 | <i>SFRS14</i> | -0,35 | 1,19E-03 | 3,31E-02 |
| 7510538 | <i>CTBP1</i> | -0,35 | 1,18E-03 | 3,31E-02 |
| 6370014 | <i>B3GAT1</i> | -0,35 | 1,18E-03 | 3,31E-02 |
| 2450754 | <i>HS.543163</i> | -0,35 | 1,18E-03 | 3,31E-02 |
| 1780445 | <i>POGZ</i> | -0,35 | 1,18E-03 | 3,29E-02 |
| 6180470 | <i>FAM108B1</i> | -0,35 | 1,17E-03 | 3,28E-02 |
| 7150711 | <i>ZNF223</i> | -0,35 | 1,17E-03 | 3,27E-02 |
| 1260154 | <i>DOLPP1</i> | -0,35 | 1,16E-03 | 3,26E-02 |
| 870735 | <i>ZNF514</i> | -0,35 | 1,16E-03 | 3,25E-02 |
| 4390524 | <i>LOC649548</i> | -0,35 | 1,15E-03 | 3,25E-02 |
| 360689 | <i>HEBP1</i> | -0,35 | 1,14E-03 | 3,21E-02 |
| 6450021 | <i>ANAPC4</i> | -0,35 | 1,14E-03 | 3,21E-02 |
| 5870632 | <i>TM9SF2</i> | -0,35 | 1,13E-03 | 3,19E-02 |
| 3170682 | <i>FLJ42289</i> | -0,35 | 1,11E-03 | 3,16E-02 |
| 2600040 | <i>C19ORF2</i> | -0,35 | 1,11E-03 | 3,16E-02 |

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| 3190020 | <i>C10ORF137</i> | -0,35 | 1,11E-03 | 3,15E-02 |
| 6620554 | <i>TSN</i> | -0,35 | 1,09E-03 | 3,12E-02 |
| 10386 | <i>TM2D1</i> | -0,35 | 1,09E-03 | 3,12E-02 |
| 650605 | <i>LOC388789</i> | -0,35 | 1,08E-03 | 3,10E-02 |
| 3870561 | <i>EHMT2</i> | -0,35 | 1,08E-03 | 3,09E-02 |
| 6940431 | <i>WSCD1</i> | -0,35 | 1,08E-03 | 3,09E-02 |
| 2070575 | <i>ALCAM</i> | -0,35 | 1,08E-03 | 3,09E-02 |
| 3460451 | <i>SH3PXD2A</i> | -0,35 | 1,08E-03 | 3,09E-02 |
| 2570156 | <i>GGA1</i> | -0,35 | 1,07E-03 | 3,08E-02 |
| 2750639 | <i>DFFA</i> | -0,35 | 1,07E-03 | 3,08E-02 |
| 620707 | <i>SLC6A16</i> | -0,35 | 1,07E-03 | 3,07E-02 |
| 1770519 | <i>PDRG1</i> | -0,35 | 1,07E-03 | 3,07E-02 |
| 3830180 | <i>VPS16</i> | -0,35 | 1,07E-03 | 3,07E-02 |
| 430438 | <i>MIAT</i> | -0,36 | 1,06E-03 | 3,06E-02 |
| 2570482 | <i>LOC728417</i> | -0,36 | 1,06E-03 | 3,06E-02 |
| 6330593 | <i>PTHR1</i> | -0,36 | 1,05E-03 | 3,04E-02 |
| 6330367 | <i>C19ORF44</i> | -0,36 | 1,05E-03 | 3,04E-02 |
| 6250646 | <i>SLC27A5</i> | -0,36 | 1,04E-03 | 3,03E-02 |
| 2370279 | <i>MACROD1</i> | -0,36 | 1,04E-03 | 3,02E-02 |
| 2030068 | <i>SCYL3</i> | -0,36 | 1,04E-03 | 3,02E-02 |
| 6770315 | <i>LOC391656</i> | -0,36 | 1,02E-03 | 2,99E-02 |
| 2600273 | <i>CATSPER2</i> | -0,36 | 1,01E-03 | 2,95E-02 |
| 3780392 | <i>LOC143941</i> | -0,36 | 1,01E-03 | 2,94E-02 |
| 4890341 | <i>SEC14L2</i> | -0,36 | 1,00E-03 | 2,93E-02 |
| 2370438 | <i>A2M</i> | -0,36 | 9,99E-04 | 2,93E-02 |
| 5420400 | <i>FLJ39827</i> | -0,36 | 9,97E-04 | 2,92E-02 |
| 4250154 | <i>LOC648749</i> | -0,36 | 9,95E-04 | 2,92E-02 |
| 5270753 | <i>ARG1</i> | -0,36 | 9,92E-04 | 2,91E-02 |
| 3450521 | <i>ECM1</i> | -0,36 | 9,89E-04 | 2,90E-02 |
| 6650189 | <i>PEX5</i> | -0,36 | 9,89E-04 | 2,90E-02 |
| 2030020 | <i>HS.544637</i> | -0,36 | 9,83E-04 | 2,89E-02 |
| 3870010 | <i>SNRP70</i> | -0,36 | 9,79E-04 | 2,88E-02 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 1070731 | <i>LOC440567</i> | -0,36 | 9,78E-04 | 2,88E-02 |
| 5700243 | <i>LIN7C</i> | -0,36 | 9,70E-04 | 2,86E-02 |
| 160181 | <i>FOXRED2</i> | -0,36 | 9,65E-04 | 2,85E-02 |
| 780100 | <i>F7</i> | -0,36 | 9,63E-04 | 2,85E-02 |
| 5700612 | <i>SEPHS1</i> | -0,36 | 9,60E-04 | 2,84E-02 |
| 4050500 | <i>TAF6</i> | -0,36 | 9,60E-04 | 2,84E-02 |
| 5910543 | <i>GLOD4</i> | -0,36 | 9,48E-04 | 2,82E-02 |
| 1740767 | <i>C11ORF63</i> | -0,36 | 9,47E-04 | 2,81E-02 |
| 4040181 | <i>NUPR1</i> | -0,36 | 9,43E-04 | 2,81E-02 |
| 4290017 | <i>PLEKHA6</i> | -0,36 | 9,33E-04 | 2,78E-02 |
| 5390347 | <i>ZNF79</i> | -0,36 | 9,31E-04 | 2,77E-02 |
| 6520048 | <i>FCGR2A</i> | -0,36 | 9,29E-04 | 2,77E-02 |
| 6520427 | <i>HS.12876</i> | -0,36 | 9,26E-04 | 2,77E-02 |
| 4830301 | <i>GCN5L2</i> | -0,36 | 9,24E-04 | 2,76E-02 |
| 3830044 | <i>GRTP1</i> | -0,36 | 9,17E-04 | 2,74E-02 |
| 1410079 | <i>CDC26</i> | -0,36 | 9,15E-04 | 2,74E-02 |
| 1400035 | <i>RCBTB2</i> | -0,36 | 9,09E-04 | 2,73E-02 |
| 840553 | <i>RGMB</i> | -0,36 | 9,02E-04 | 2,71E-02 |
| 6200286 | <i>RHBDL2</i> | -0,36 | 9,01E-04 | 2,71E-02 |
| 1170161 | <i>HS.149679</i> | -0,36 | 8,96E-04 | 2,70E-02 |
| 990075 | <i>BMP4</i> | -0,36 | 8,92E-04 | 2,69E-02 |
| 460072 | <i>MTX2</i> | -0,36 | 8,90E-04 | 2,68E-02 |
| 3870470 | <i>LOC728973</i> | -0,36 | 8,85E-04 | 2,67E-02 |
| 3460463 | <i>PKLR</i> | -0,36 | 8,85E-04 | 2,67E-02 |
| 6450066 | <i>CUX2</i> | -0,36 | 8,83E-04 | 2,67E-02 |
| 5220139 | <i>FLJ23834</i> | -0,36 | 8,81E-04 | 2,66E-02 |
| 1430711 | <i>KLF12</i> | -0,36 | 8,79E-04 | 2,66E-02 |
| 4230753 | <i>HLX</i> | -0,36 | 8,78E-04 | 2,66E-02 |
| 5270343 | <i>IQCC</i> | -0,36 | 8,74E-04 | 2,65E-02 |
| 1570280 | <i>GCC1</i> | -0,36 | 8,70E-04 | 2,64E-02 |
| 670136 | <i>FLJ38717</i> | -0,36 | 8,68E-04 | 2,64E-02 |
| 450376 | <i>TSC2</i> | -0,36 | 8,64E-04 | 2,63E-02 |

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| 6400711 | <i>ZNF573</i> | -0,36 | 8,63E-04 | 2,63E-02 |
| 6450475 | <i>YRDC</i> | -0,36 | 8,58E-04 | 2,62E-02 |
| 6180154 | <i>MRPL10</i> | -0,36 | 8,55E-04 | 2,61E-02 |
| 620626 | <i>NAT2</i> | -0,36 | 8,47E-04 | 2,60E-02 |
| 2680497 | <i>NCAPD2</i> | -0,36 | 8,40E-04 | 2,58E-02 |
| 3400156 | <i>FAM99A</i> | -0,36 | 8,35E-04 | 2,57E-02 |
| 6450162 | <i>MGC59937</i> | -0,36 | 8,34E-04 | 2,57E-02 |
| 4830195 | <i>HS.223856</i> | -0,36 | 8,34E-04 | 2,57E-02 |
| 770280 | <i>OR5P2</i> | -0,36 | 8,34E-04 | 2,57E-02 |
| 6770215 | <i>SARDH</i> | -0,36 | 8,33E-04 | 2,57E-02 |
| 3520484 | <i>HS.552903</i> | -0,36 | 8,27E-04 | 2,55E-02 |
| 5220717 | <i>HS.526973</i> | -0,36 | 8,15E-04 | 2,52E-02 |
| 2600360 | <i>C1ORF9</i> | -0,36 | 8,13E-04 | 2,52E-02 |
| 1500538 | <i>LOC645138</i> | -0,36 | 8,11E-04 | 2,52E-02 |
| 2710044 | <i>SLC39A5</i> | -0,36 | 8,10E-04 | 2,51E-02 |
| 2070059 | <i>PARP10</i> | -0,36 | 8,00E-04 | 2,49E-02 |
| 6520398 | <i>HS.550371</i> | -0,36 | 8,00E-04 | 2,49E-02 |
| 4390121 | <i>ADRM1</i> | -0,36 | 7,99E-04 | 2,48E-02 |
| 380068 | <i>TMEM80</i> | -0,36 | 7,98E-04 | 2,48E-02 |
| 5900286 | <i>ZFP90</i> | -0,36 | 7,96E-04 | 2,48E-02 |
| 6040064 | <i>IHPK1</i> | -0,36 | 7,96E-04 | 2,48E-02 |
| 5810689 | <i>PRRG4</i> | -0,36 | 7,96E-04 | 2,48E-02 |
| 2100358 | <i>HGD</i> | -0,36 | 7,94E-04 | 2,48E-02 |
| 6380255 | <i>RPS3A</i> | -0,36 | 7,94E-04 | 2,48E-02 |
| 2100521 | <i>STARD8</i> | -0,36 | 7,94E-04 | 2,48E-02 |
| 5570593 | <i>KIAA1751</i> | -0,36 | 7,89E-04 | 2,47E-02 |
| 1780356 | <i>HAGH</i> | -0,36 | 7,89E-04 | 2,47E-02 |
| 1090041 | <i>A26A1</i> | -0,36 | 7,88E-04 | 2,47E-02 |
| 50193 | <i>ZNF318</i> | -0,36 | 7,87E-04 | 2,47E-02 |
| 270403 | <i>TTC14</i> | -0,36 | 7,87E-04 | 2,47E-02 |
| 6560670 | <i>HS.496730</i> | -0,36 | 7,86E-04 | 2,47E-02 |
| 4210520 | <i>HS.538684</i> | -0,36 | 7,83E-04 | 2,46E-02 |

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|---------|------------------|-------|----------|----------|
| 7200612 | <i>LOC730417</i> | -0,36 | 7,82E-04 | 2,46E-02 |
| 1010446 | <i>C1QTNF6</i> | -0,36 | 7,78E-04 | 2,45E-02 |
| 2680670 | <i>HS.415576</i> | -0,36 | 7,73E-04 | 2,44E-02 |
| 4560270 | <i>PTPLB</i> | -0,36 | 7,70E-04 | 2,43E-02 |
| 7380068 | <i>CNBP</i> | -0,36 | 7,69E-04 | 2,43E-02 |
| 4010348 | <i>INPP5B</i> | -0,36 | 7,65E-04 | 2,42E-02 |
| 4050066 | <i>SGTB</i> | -0,36 | 7,60E-04 | 2,41E-02 |
| 5420367 | <i>SOD1</i> | -0,36 | 7,60E-04 | 2,41E-02 |
| 7210601 | <i>LOC651404</i> | -0,36 | 7,59E-04 | 2,41E-02 |
| 2140392 | <i>ZNF580</i> | -0,36 | 7,58E-04 | 2,41E-02 |
| 7200719 | <i>INTS3</i> | -0,36 | 7,52E-04 | 2,39E-02 |
| 510192 | <i>CXXC4</i> | -0,37 | 7,43E-04 | 2,37E-02 |
| 1770025 | <i>SYNE2</i> | -0,37 | 7,42E-04 | 2,37E-02 |
| 5390608 | <i>GSDML</i> | -0,37 | 7,42E-04 | 2,37E-02 |
| 4050768 | <i>CHST13</i> | -0,37 | 7,37E-04 | 2,36E-02 |
| 2060014 | <i>HS.31532</i> | -0,37 | 7,35E-04 | 2,36E-02 |
| 4480348 | <i>FBXW9</i> | -0,37 | 7,34E-04 | 2,35E-02 |
| 5820521 | <i>PTBP2</i> | -0,37 | 7,23E-04 | 2,32E-02 |
| 5900129 | <i>CROP</i> | -0,37 | 7,21E-04 | 2,32E-02 |
| 6060056 | <i>RPLP1</i> | -0,37 | 7,18E-04 | 2,31E-02 |
| 3930437 | <i>LOC339047</i> | -0,37 | 7,15E-04 | 2,31E-02 |
| 730093 | <i>SHD</i> | -0,37 | 7,14E-04 | 2,30E-02 |
| 3710612 | <i>FRAG1</i> | -0,37 | 7,13E-04 | 2,30E-02 |
| 110327 | <i>SEC62</i> | -0,37 | 7,10E-04 | 2,30E-02 |
| 6620608 | <i>ZNF248</i> | -0,37 | 7,09E-04 | 2,29E-02 |
| 1230025 | <i>CYB5R1</i> | -0,37 | 7,03E-04 | 2,28E-02 |
| 6860246 | <i>GRAMD1C</i> | -0,37 | 7,00E-04 | 2,27E-02 |
| 380379 | <i>KIAA1737</i> | -0,37 | 6,91E-04 | 2,25E-02 |
| 2230373 | <i>LOC652679</i> | -0,37 | 6,90E-04 | 2,24E-02 |
| 5340682 | <i>LOC650293</i> | -0,37 | 6,85E-04 | 2,23E-02 |
| 7610528 | <i>ZNF14</i> | -0,37 | 6,84E-04 | 2,23E-02 |
| 160047 | <i>LOC389787</i> | -0,37 | 6,82E-04 | 2,22E-02 |

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| 2630224 | <i>LOC93622</i> | -0,37 | 6,76E-04 | 2,21E-02 |
| 1770270 | <i>C1ORF117</i> | -0,37 | 6,74E-04 | 2,20E-02 |
| 6370358 | <i>C1ORF168</i> | -0,37 | 6,72E-04 | 2,20E-02 |
| 6370228 | <i>HS.554507</i> | -0,37 | 6,58E-04 | 2,16E-02 |
| 2470270 | <i>DUS4L</i> | -0,37 | 6,57E-04 | 2,16E-02 |
| 2100519 | <i>IPP</i> | -0,37 | 6,55E-04 | 2,15E-02 |
| 4070706 | <i>GALK2</i> | -0,37 | 6,55E-04 | 2,15E-02 |
| 3170669 | <i>REV1</i> | -0,37 | 6,54E-04 | 2,15E-02 |
| 6770279 | <i>ERMAP</i> | -0,37 | 6,49E-04 | 2,14E-02 |
| 1580129 | <i>MRPS7</i> | -0,37 | 6,48E-04 | 2,14E-02 |
| 2970632 | <i>RP9</i> | -0,37 | 6,45E-04 | 2,13E-02 |
| 5260082 | <i>CP110</i> | -0,37 | 6,44E-04 | 2,13E-02 |
| 6900768 | <i>HS.162932</i> | -0,37 | 6,44E-04 | 2,13E-02 |
| 6250605 | <i>RCCD1</i> | -0,37 | 6,41E-04 | 2,12E-02 |
| 2570731 | <i>TRPV1</i> | -0,37 | 6,38E-04 | 2,11E-02 |
| 5340059 | <i>LRRC58</i> | -0,37 | 6,36E-04 | 2,11E-02 |
| 4830446 | <i>LOC645520</i> | -0,37 | 6,35E-04 | 2,11E-02 |
| 2750202 | <i>HS.537002</i> | -0,37 | 6,26E-04 | 2,08E-02 |
| 5560482 | <i>UBQLN2</i> | -0,37 | 6,26E-04 | 2,08E-02 |
| 2030414 | <i>BCHE</i> | -0,37 | 6,25E-04 | 2,08E-02 |
| 430519 | <i>FAM120A</i> | -0,37 | 6,24E-04 | 2,08E-02 |
| 2340709 | <i>ZMYM3</i> | -0,37 | 6,22E-04 | 2,07E-02 |
| 6380131 | <i>TAF1C</i> | -0,37 | 6,19E-04 | 2,06E-02 |
| 1980259 | <i>C15ORF28</i> | -0,37 | 6,14E-04 | 2,05E-02 |
| 6180678 | <i>TMEM143</i> | -0,37 | 6,13E-04 | 2,05E-02 |
| 5220653 | <i>NARS</i> | -0,37 | 6,13E-04 | 2,05E-02 |
| 3190634 | <i>DSTN</i> | -0,37 | 6,11E-04 | 2,05E-02 |
| 3130132 | <i>LOC654260</i> | -0,37 | 6,08E-04 | 2,04E-02 |
| 3830192 | <i>ZNF791</i> | -0,37 | 6,07E-04 | 2,04E-02 |
| 6370639 | <i>MINPP1</i> | -0,37 | 6,04E-04 | 2,03E-02 |
| 2340093 | <i>GABRA3</i> | -0,37 | 6,02E-04 | 2,02E-02 |
| 770561 | <i>C20ORF108</i> | -0,37 | 5,91E-04 | 1,99E-02 |

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| 6180204 | <i>FUK</i> | -0,37 | 5,91E-04 | 1,99E-02 |
| 1400019 | <i>CPA2</i> | -0,37 | 5,91E-04 | 1,99E-02 |
| 4890463 | <i>EXOSC10</i> | -0,37 | 5,83E-04 | 1,97E-02 |
| 2640274 | <i>ALDH5A1</i> | -0,37 | 5,83E-04 | 1,97E-02 |
| 4050196 | <i>RNF170</i> | -0,37 | 5,83E-04 | 1,97E-02 |
| 1410600 | <i>TRIM13</i> | -0,37 | 5,78E-04 | 1,96E-02 |
| 2320215 | <i>NUP210</i> | -0,37 | 5,76E-04 | 1,95E-02 |
| 2810674 | <i>TRIM4</i> | -0,37 | 5,68E-04 | 1,93E-02 |
| 3610278 | <i>LOC91661</i> | -0,37 | 5,67E-04 | 1,93E-02 |
| 1770273 | <i>ANKRD30B</i> | -0,37 | 5,66E-04 | 1,93E-02 |
| 6220131 | <i>HS.14514</i> | -0,37 | 5,64E-04 | 1,92E-02 |
| 1090576 | <i>EIF2B5</i> | -0,37 | 5,61E-04 | 1,92E-02 |
| 7570131 | <i>RPS18</i> | -0,37 | 5,56E-04 | 1,90E-02 |
| 1690114 | <i>U2AF2</i> | -0,37 | 5,55E-04 | 1,90E-02 |
| 5130176 | <i>ASAH1</i> | -0,37 | 5,53E-04 | 1,90E-02 |
| 7150259 | <i>C7ORF49</i> | -0,37 | 5,52E-04 | 1,90E-02 |
| 6940008 | <i>PNLDC1</i> | -0,37 | 5,49E-04 | 1,89E-02 |
| 2120653 | <i>RAXL1</i> | -0,37 | 5,49E-04 | 1,89E-02 |
| 4810494 | <i>AKAP1</i> | -0,37 | 5,45E-04 | 1,88E-02 |
| 5690402 | <i>CLOCK</i> | -0,37 | 5,45E-04 | 1,88E-02 |
| 2370193 | <i>RPS15A</i> | -0,37 | 5,44E-04 | 1,88E-02 |
| 7400240 | <i>KLKB1</i> | -0,37 | 5,44E-04 | 1,88E-02 |
| 5360673 | <i>HS.562058</i> | -0,37 | 5,40E-04 | 1,87E-02 |
| 7050040 | <i>ZNF318</i> | -0,37 | 5,35E-04 | 1,86E-02 |
| 2490291 | <i>PAN2</i> | -0,37 | 5,32E-04 | 1,85E-02 |
| 6250390 | <i>TSR2</i> | -0,37 | 5,31E-04 | 1,85E-02 |
| 2260168 | <i>LOC731640</i> | -0,37 | 5,27E-04 | 1,84E-02 |
| 290435 | <i>KRTCAP3</i> | -0,37 | 5,27E-04 | 1,84E-02 |
| 4070154 | <i>IQWD1</i> | -0,37 | 5,24E-04 | 1,83E-02 |
| 4290196 | <i>SCRIB</i> | -0,37 | 5,22E-04 | 1,83E-02 |
| 3990703 | <i>IL10</i> | -0,37 | 5,21E-04 | 1,83E-02 |
| 20192 | <i>DHX35</i> | -0,37 | 5,21E-04 | 1,83E-02 |

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| 2810373 | <i>FAM20A</i> | -0,37 | 5,18E-04 | 1,82E-02 |
| 150491 | <i>LOC401622</i> | -0,38 | 5,15E-04 | 1,81E-02 |
| 460347 | <i>LOC150383</i> | -0,38 | 5,11E-04 | 1,80E-02 |
| 2710653 | <i>FBXO38</i> | -0,38 | 5,09E-04 | 1,79E-02 |
| 3370274 | <i>ANKRD11</i> | -0,38 | 5,08E-04 | 1,79E-02 |
| 6660348 | <i>DCUN1D4</i> | -0,38 | 5,08E-04 | 1,79E-02 |
| 3170292 | <i>DDAH1</i> | -0,38 | 5,08E-04 | 1,79E-02 |
| 3930296 | <i>EIF1AX</i> | -0,38 | 5,05E-04 | 1,79E-02 |
| 4210722 | <i>LOC641693</i> | -0,38 | 5,02E-04 | 1,78E-02 |
| 4610041 | <i>LOC728473</i> | -0,38 | 5,01E-04 | 1,78E-02 |
| 60707 | <i>DPP8</i> | -0,38 | 4,97E-04 | 1,76E-02 |
| 6900674 | <i>ANKRD10</i> | -0,38 | 4,94E-04 | 1,76E-02 |
| 4070296 | <i>BCORL1</i> | -0,38 | 4,94E-04 | 1,76E-02 |
| 6580504 | <i>LOC124512</i> | -0,38 | 4,91E-04 | 1,75E-02 |
| 1740131 | <i>HAO1</i> | -0,38 | 4,88E-04 | 1,74E-02 |
| 1510091 | <i>VPS36</i> | -0,38 | 4,87E-04 | 1,74E-02 |
| 3870608 | <i>CSPP1</i> | -0,38 | 4,84E-04 | 1,73E-02 |
| 2350543 | <i>EID2B</i> | -0,38 | 4,82E-04 | 1,73E-02 |
| 2640767 | <i>LOC646100</i> | -0,38 | 4,81E-04 | 1,73E-02 |
| 3060040 | <i>PABPC1</i> | -0,38 | 4,80E-04 | 1,72E-02 |
| 1440356 | <i>CNOT4</i> | -0,38 | 4,78E-04 | 1,72E-02 |
| 6620521 | <i>BLVRB</i> | -0,38 | 4,74E-04 | 1,71E-02 |
| 540239 | <i>TRIM41</i> | -0,38 | 4,74E-04 | 1,71E-02 |
| 2680156 | <i>RBM10</i> | -0,38 | 4,71E-04 | 1,70E-02 |
| 6040768 | <i>DMAP1</i> | -0,38 | 4,69E-04 | 1,69E-02 |
| 5260386 | <i>PCGF1</i> | -0,38 | 4,67E-04 | 1,69E-02 |
| 2970315 | <i>RNPC3</i> | -0,38 | 4,65E-04 | 1,68E-02 |
| 4570484 | <i>USP48</i> | -0,38 | 4,62E-04 | 1,67E-02 |
| 5960411 | <i>BCYRN1</i> | -0,38 | 4,60E-04 | 1,67E-02 |
| 670446 | <i>FAM86C</i> | -0,38 | 4,45E-04 | 1,62E-02 |
| 2510324 | <i>NUDT2</i> | -0,38 | 4,44E-04 | 1,62E-02 |
| 3850228 | <i>ZRANB2</i> | -0,38 | 4,40E-04 | 1,61E-02 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 2060491 | <i>ZNF565</i> | -0,38 | 4,39E-04 | 1,60E-02 |
| 2470279 | <i>ACADM</i> | -0,38 | 4,37E-04 | 1,60E-02 |
| 2320047 | <i>NFIA</i> | -0,38 | 4,37E-04 | 1,60E-02 |
| 3370136 | <i>ACAD11</i> | -0,38 | 4,34E-04 | 1,59E-02 |
| 7210333 | <i>HS.571151</i> | -0,38 | 4,34E-04 | 1,59E-02 |
| 6280520 | <i>TMEM45A</i> | -0,38 | 4,32E-04 | 1,59E-02 |
| 1990047 | <i>C9ORF119</i> | -0,38 | 4,32E-04 | 1,59E-02 |
| 6380376 | <i>USP21</i> | -0,38 | 4,30E-04 | 1,58E-02 |
| 1660541 | <i>ESRRA</i> | -0,38 | 4,30E-04 | 1,58E-02 |
| 1660762 | <i>LOC285908</i> | -0,38 | 4,29E-04 | 1,58E-02 |
| 6620520 | <i>LOC652009</i> | -0,38 | 4,29E-04 | 1,58E-02 |
| 1300328 | <i>ABHD10</i> | -0,38 | 4,27E-04 | 1,58E-02 |
| 620639 | <i>ASAH1</i> | -0,38 | 4,27E-04 | 1,58E-02 |
| 840551 | <i>CEP27</i> | -0,38 | 4,27E-04 | 1,58E-02 |
| 4230035 | <i>KIAA0999</i> | -0,38 | 4,23E-04 | 1,57E-02 |
| 5490053 | <i>DLEU1</i> | -0,38 | 4,19E-04 | 1,55E-02 |
| 4890703 | <i>MBTD1</i> | -0,38 | 4,17E-04 | 1,55E-02 |
| 520754 | <i>CSTF1</i> | -0,38 | 4,16E-04 | 1,55E-02 |
| 5690156 | <i>TTC31</i> | -0,38 | 4,15E-04 | 1,54E-02 |
| 1580168 | <i>ACTR6</i> | -0,38 | 4,12E-04 | 1,54E-02 |
| 1770133 | <i>LOC389599</i> | -0,38 | 4,11E-04 | 1,53E-02 |
| 1710113 | <i>PPP1R3E</i> | -0,38 | 4,09E-04 | 1,53E-02 |
| 1050754 | <i>LOC653583</i> | -0,38 | 4,06E-04 | 1,52E-02 |
| 4220441 | <i>PTPRD</i> | -0,38 | 4,05E-04 | 1,52E-02 |
| 6200253 | <i>THBS4</i> | -0,38 | 4,05E-04 | 1,52E-02 |
| 6350484 | <i>SLC28A1</i> | -0,38 | 4,04E-04 | 1,52E-02 |
| 4040093 | <i>GIMAP6</i> | -0,38 | 4,03E-04 | 1,51E-02 |
| 3940653 | <i>PREPL</i> | -0,38 | 4,02E-04 | 1,51E-02 |
| 4260687 | <i>SLCO4C1</i> | -0,38 | 3,95E-04 | 1,49E-02 |
| 1470386 | <i>CPNE8</i> | -0,38 | 3,95E-04 | 1,49E-02 |
| 2630379 | <i>ZNF69</i> | -0,38 | 3,94E-04 | 1,49E-02 |
| 4850500 | <i>PVRL3</i> | -0,38 | 3,91E-04 | 1,48E-02 |

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|---------|------------------|-------|----------|----------|
| 6420521 | <i>PRUNE</i> | -0,38 | 3,91E-04 | 1,48E-02 |
| 1980474 | <i>LOC201164</i> | -0,38 | 3,88E-04 | 1,47E-02 |
| 6650026 | <i>ASTE1</i> | -0,38 | 3,85E-04 | 1,46E-02 |
| 4280725 | <i>RNF14</i> | -0,38 | 3,84E-04 | 1,46E-02 |
| 6580291 | <i>ABAT</i> | -0,38 | 3,84E-04 | 1,46E-02 |
| 6660487 | <i>ZNF577</i> | -0,38 | 3,83E-04 | 1,46E-02 |
| 5310292 | <i>CFHR5</i> | -0,38 | 3,81E-04 | 1,46E-02 |
| 1430392 | <i>LOC648130</i> | -0,38 | 3,79E-04 | 1,45E-02 |
| 160307 | <i>C9ORF3</i> | -0,38 | 3,77E-04 | 1,44E-02 |
| 6290110 | <i>RFC1</i> | -0,38 | 3,76E-04 | 1,44E-02 |
| 5870594 | <i>RAB33B</i> | -0,38 | 3,74E-04 | 1,44E-02 |
| 5260632 | <i>UBE2D4</i> | -0,38 | 3,70E-04 | 1,42E-02 |
| 7200519 | <i>FLJ46309</i> | -0,38 | 3,69E-04 | 1,42E-02 |
| 1990053 | <i>POLRMT</i> | -0,38 | 3,66E-04 | 1,41E-02 |
| 540446 | <i>TIMM8B</i> | -0,38 | 3,65E-04 | 1,41E-02 |
| 1030201 | <i>WDR33</i> | -0,38 | 3,65E-04 | 1,41E-02 |
| 630278 | <i>H1FO</i> | -0,38 | 3,63E-04 | 1,41E-02 |
| 730722 | <i>ITIH2</i> | -0,38 | 3,61E-04 | 1,40E-02 |
| 1230653 | <i>CYP3A43</i> | -0,38 | 3,60E-04 | 1,40E-02 |
| 4640491 | <i>CDO1</i> | -0,38 | 3,60E-04 | 1,40E-02 |
| 830064 | <i>HS.290540</i> | -0,38 | 3,57E-04 | 1,39E-02 |
| 1850612 | <i>PARP2</i> | -0,39 | 3,53E-04 | 1,37E-02 |
| 3460528 | <i>HS.122125</i> | -0,39 | 3,47E-04 | 1,36E-02 |
| 1430689 | <i>LOC55908</i> | -0,39 | 3,45E-04 | 1,35E-02 |
| 5870372 | <i>UGT2B28</i> | -0,39 | 3,44E-04 | 1,35E-02 |
| 7000754 | <i>AMY2B</i> | -0,39 | 3,44E-04 | 1,35E-02 |
| 6590338 | <i>LOC401623</i> | -0,39 | 3,43E-04 | 1,35E-02 |
| 3440189 | <i>ZBTB20</i> | -0,39 | 3,41E-04 | 1,34E-02 |
| 5860187 | <i>PHYH</i> | -0,39 | 3,39E-04 | 1,34E-02 |
| 450300 | <i>ANKFY1</i> | -0,39 | 3,38E-04 | 1,33E-02 |
| 1990717 | <i>C1ORF63</i> | -0,39 | 3,38E-04 | 1,33E-02 |
| 730392 | <i>HS.543842</i> | -0,39 | 3,36E-04 | 1,33E-02 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 3830274 | <i>CROT</i> | -0,39 | 3,34E-04 | 1,33E-02 |
| 6370674 | <i>TUBE1</i> | -0,39 | 3,32E-04 | 1,32E-02 |
| 4180630 | <i>HS.439050</i> | -0,39 | 3,32E-04 | 1,32E-02 |
| 3310259 | <i>LOC648852</i> | -0,39 | 3,31E-04 | 1,32E-02 |
| 1260601 | <i>ST6GAL1</i> | -0,39 | 3,29E-04 | 1,31E-02 |
| 6760192 | <i>CHP</i> | -0,39 | 3,25E-04 | 1,30E-02 |
| 6110356 | <i>RPS14</i> | -0,39 | 3,17E-04 | 1,27E-02 |
| 4390576 | <i>DFFA</i> | -0,39 | 3,16E-04 | 1,27E-02 |
| 3930082 | <i>FLJ12355</i> | -0,39 | 3,12E-04 | 1,25E-02 |
| 450161 | <i>FAHD1</i> | -0,39 | 3,12E-04 | 1,25E-02 |
| 2510209 | <i>KDELR1</i> | -0,39 | 3,06E-04 | 1,24E-02 |
| 870128 | <i>ZKSCAN1</i> | -0,39 | 3,01E-04 | 1,22E-02 |
| 5490671 | <i>XAB2</i> | -0,39 | 3,00E-04 | 1,22E-02 |
| 3370121 | <i>LASS2</i> | -0,39 | 2,99E-04 | 1,21E-02 |
| 4860500 | <i>LOC652968</i> | -0,39 | 2,95E-04 | 1,20E-02 |
| 7210450 | <i>LMO4</i> | -0,39 | 2,94E-04 | 1,20E-02 |
| 6370682 | <i>GRIPAP1</i> | -0,39 | 2,93E-04 | 1,20E-02 |
| 6560239 | <i>CYP4F12</i> | -0,39 | 2,91E-04 | 1,19E-02 |
| 2060110 | <i>TDP1</i> | -0,39 | 2,91E-04 | 1,19E-02 |
| 7150162 | <i>MRPS25</i> | -0,39 | 2,90E-04 | 1,19E-02 |
| 3450114 | <i>FAM69B</i> | -0,39 | 2,89E-04 | 1,19E-02 |
| 6350324 | <i>GLYAT</i> | -0,39 | 2,87E-04 | 1,18E-02 |
| 7200021 | <i>CUL4A</i> | -0,39 | 2,87E-04 | 1,18E-02 |
| 6770647 | <i>TLK1</i> | -0,39 | 2,86E-04 | 1,18E-02 |
| 4920682 | <i>GLYCTK</i> | -0,39 | 2,83E-04 | 1,17E-02 |
| 6420730 | <i>RPL9</i> | -0,39 | 2,82E-04 | 1,16E-02 |
| 650349 | <i>RPS28</i> | -0,39 | 2,80E-04 | 1,15E-02 |
| 4050377 | <i>LOC648622</i> | -0,39 | 2,77E-04 | 1,15E-02 |
| 2260376 | <i>C14ORF131</i> | -0,39 | 2,76E-04 | 1,14E-02 |
| 990687 | <i>STOX2</i> | -0,39 | 2,75E-04 | 1,14E-02 |
| 6900053 | <i>PPFIBP2</i> | -0,39 | 2,74E-04 | 1,14E-02 |
| 3140047 | <i>CROP</i> | -0,39 | 2,72E-04 | 1,13E-02 |

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|---------|-------------------|-------|----------|----------|
| 6100630 | <i>MUM1</i> | -0,39 | 2,70E-04 | 1,13E-02 |
| 70767 | <i>BAIAP2</i> | -0,39 | 2,70E-04 | 1,13E-02 |
| 3290187 | <i>PCMTD1</i> | -0,39 | 2,68E-04 | 1,12E-02 |
| 1660368 | <i>PKN1</i> | -0,39 | 2,66E-04 | 1,11E-02 |
| 3780441 | <i>PHLDB2</i> | -0,39 | 2,65E-04 | 1,11E-02 |
| 2230411 | <i>SMEK2</i> | -0,39 | 2,65E-04 | 1,11E-02 |
| 1850086 | <i>HS.547580</i> | -0,39 | 2,60E-04 | 1,09E-02 |
| 5220504 | <i>CHCHD7</i> | -0,39 | 2,59E-04 | 1,09E-02 |
| 2810687 | <i>LRRC14</i> | -0,39 | 2,57E-04 | 1,08E-02 |
| 5860369 | <i>KIAA0564</i> | -0,39 | 2,54E-04 | 1,08E-02 |
| 3610112 | <i>RAB11FIP3</i> | -0,39 | 2,50E-04 | 1,06E-02 |
| 3120328 | <i>GUCY2E</i> | -0,39 | 2,49E-04 | 1,06E-02 |
| 3370687 | <i>CGGBP1</i> | -0,39 | 2,47E-04 | 1,05E-02 |
| 1580338 | <i>KIAA1267</i> | -0,39 | 2,46E-04 | 1,05E-02 |
| 7400224 | <i>CDKN2AIPNL</i> | -0,40 | 2,39E-04 | 1,02E-02 |
| 7000424 | <i>LOC732075</i> | -0,40 | 2,37E-04 | 1,02E-02 |
| 6960397 | <i>EPHX2</i> | -0,40 | 2,37E-04 | 1,02E-02 |
| 4010411 | <i>RHOT1</i> | -0,40 | 2,35E-04 | 1,01E-02 |
| 150092 | <i>RBM33</i> | -0,40 | 2,35E-04 | 1,01E-02 |
| 2760349 | <i>C5ORF33</i> | -0,40 | 2,34E-04 | 1,01E-02 |
| 3780041 | <i>TIAF1</i> | -0,40 | 2,31E-04 | 9,98E-03 |
| 3460039 | <i>RUNDC2C</i> | -0,40 | 2,31E-04 | 9,97E-03 |
| 1410400 | <i>HNRNPU</i> | -0,40 | 2,28E-04 | 9,90E-03 |
| 6040204 | <i>ATP11C</i> | -0,40 | 2,26E-04 | 9,83E-03 |
| 6510025 | <i>NSMCE4A</i> | -0,40 | 2,22E-04 | 9,71E-03 |
| 870202 | <i>TNFSF10</i> | -0,40 | 2,21E-04 | 9,67E-03 |
| 5960450 | <i>SLC35C2</i> | -0,40 | 2,21E-04 | 9,66E-03 |
| 430400 | <i>GLT8D1</i> | -0,40 | 2,17E-04 | 9,53E-03 |
| 270544 | <i>NR2C1</i> | -0,40 | 2,16E-04 | 9,49E-03 |
| 1580537 | <i>PCBP2</i> | -0,40 | 2,15E-04 | 9,47E-03 |
| 270593 | <i>GPER</i> | -0,40 | 2,15E-04 | 9,47E-03 |
| 3400451 | <i>KIF18B</i> | -0,40 | 2,14E-04 | 9,45E-03 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 5420706 | <i>LOC643011</i> | -0,40 | 2,10E-04 | 9,30E-03 |
| 1400025 | <i>PTOV1</i> | -0,40 | 2,10E-04 | 9,30E-03 |
| 7510551 | <i>FLJ21986</i> | -0,40 | 2,09E-04 | 9,29E-03 |
| 5090040 | <i>ING1</i> | -0,40 | 2,08E-04 | 9,29E-03 |
| 990273 | <i>RPL37A</i> | -0,40 | 2,08E-04 | 9,29E-03 |
| 7400100 | <i>SUOX</i> | -0,40 | 2,07E-04 | 9,26E-03 |
| 6130438 | <i>GSTCD</i> | -0,40 | 2,06E-04 | 9,24E-03 |
| 1110221 | <i>LOC554235</i> | -0,40 | 2,05E-04 | 9,20E-03 |
| 1690326 | <i>PGRMC2</i> | -0,40 | 2,05E-04 | 9,20E-03 |
| 2070706 | <i>KRIT1</i> | -0,40 | 2,05E-04 | 9,19E-03 |
| 1090292 | <i>BMI1</i> | -0,40 | 2,03E-04 | 9,13E-03 |
| 6510196 | <i>TRIM24</i> | -0,40 | 2,02E-04 | 9,08E-03 |
| 3180400 | <i>EGFL7</i> | -0,40 | 2,00E-04 | 9,04E-03 |
| 4290349 | <i>LOC643949</i> | -0,40 | 2,00E-04 | 9,03E-03 |
| 240132 | <i>ZNF627</i> | -0,40 | 2,00E-04 | 9,03E-03 |
| 6900437 | <i>FLJ40722</i> | -0,40 | 1,98E-04 | 8,98E-03 |
| 5870403 | <i>CEPT1</i> | -0,40 | 1,98E-04 | 8,96E-03 |
| 1170228 | <i>ACY3</i> | -0,40 | 1,97E-04 | 8,94E-03 |
| 4050195 | <i>FAM10A4</i> | -0,40 | 1,94E-04 | 8,83E-03 |
| 4200605 | <i>XRCC2</i> | -0,40 | 1,92E-04 | 8,78E-03 |
| 3990630 | <i>DCDC5</i> | -0,40 | 1,91E-04 | 8,74E-03 |
| 5270064 | <i>SHROOM4</i> | -0,40 | 1,89E-04 | 8,67E-03 |
| 3800041 | <i>RCOR3</i> | -0,40 | 1,89E-04 | 8,67E-03 |
| 3850273 | <i>PEBP1</i> | -0,40 | 1,88E-04 | 8,66E-03 |
| 110240 | <i>C12ORF29</i> | -0,40 | 1,87E-04 | 8,62E-03 |
| 3440630 | <i>ESPN</i> | -0,40 | 1,84E-04 | 8,50E-03 |
| 5860546 | <i>ZNF22</i> | -0,40 | 1,84E-04 | 8,49E-03 |
| 4220327 | <i>MRPL38</i> | -0,40 | 1,83E-04 | 8,46E-03 |
| 7380390 | <i>LOC90586</i> | -0,40 | 1,82E-04 | 8,44E-03 |
| 5720575 | <i>C10ORF114</i> | -0,40 | 1,82E-04 | 8,44E-03 |
| 4560762 | <i>ST13</i> | -0,40 | 1,81E-04 | 8,41E-03 |
| 7510553 | <i>C1ORF83</i> | -0,40 | 1,79E-04 | 8,34E-03 |

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| 2680474 | <i>SUMF2</i> | -0,40 | 1,78E-04 | 8,34E-03 |
| 6130273 | <i>FAM76B</i> | -0,40 | 1,78E-04 | 8,33E-03 |
| 6220180 | <i>CABC1</i> | -0,40 | 1,78E-04 | 8,32E-03 |
| 6220332 | <i>SLC6A12</i> | -0,40 | 1,78E-04 | 8,32E-03 |
| 630634 | <i>ZNF544</i> | -0,40 | 1,77E-04 | 8,32E-03 |
| 620369 | <i>PPP2R2B</i> | -0,40 | 1,73E-04 | 8,18E-03 |
| 5490601 | <i>SLC40A1</i> | -0,40 | 1,71E-04 | 8,10E-03 |
| 730379 | <i>LOC388621</i> | -0,40 | 1,68E-04 | 8,00E-03 |
| 520484 | <i>USP15</i> | -0,40 | 1,68E-04 | 7,99E-03 |
| 4180142 | <i>KIAA1370</i> | -0,40 | 1,66E-04 | 7,93E-03 |
| 3840360 | <i>LARP4</i> | -0,40 | 1,65E-04 | 7,90E-03 |
| 1940494 | <i>ZNF133</i> | -0,40 | 1,65E-04 | 7,88E-03 |
| 380132 | <i>ZNF483</i> | -0,40 | 1,63E-04 | 7,82E-03 |
| 4260093 | <i>ZCCHC11</i> | -0,41 | 1,58E-04 | 7,63E-03 |
| 2480768 | <i>DHFRL1</i> | -0,41 | 1,57E-04 | 7,61E-03 |
| 2480044 | <i>MTX2</i> | -0,41 | 1,57E-04 | 7,61E-03 |
| 5570246 | <i>DISP1</i> | -0,41 | 1,56E-04 | 7,57E-03 |
| 610091 | <i>C4ORF8</i> | -0,41 | 1,51E-04 | 7,36E-03 |
| 5900452 | <i>CHST7</i> | -0,41 | 1,48E-04 | 7,26E-03 |
| 2710324 | <i>HELZ</i> | -0,41 | 1,48E-04 | 7,25E-03 |
| 7000376 | <i>C20ORF191</i> | -0,41 | 1,47E-04 | 7,22E-03 |
| 6760450 | <i>CAPS</i> | -0,41 | 1,46E-04 | 7,18E-03 |
| 1260435 | <i>ZNF511</i> | -0,41 | 1,45E-04 | 7,12E-03 |
| 3800725 | <i>SPHK2</i> | -0,41 | 1,44E-04 | 7,10E-03 |
| 7650343 | <i>USP47</i> | -0,41 | 1,42E-04 | 7,02E-03 |
| 5270139 | <i>PEX11G</i> | -0,41 | 1,40E-04 | 6,96E-03 |
| 6290129 | <i>DMD</i> | -0,41 | 1,40E-04 | 6,95E-03 |
| 6510403 | <i>GLULD1</i> | -0,41 | 1,39E-04 | 6,93E-03 |
| 2000327 | <i>GRB14</i> | -0,41 | 1,39E-04 | 6,91E-03 |
| 3170300 | <i>MTSS1</i> | -0,41 | 1,37E-04 | 6,85E-03 |
| 5570348 | <i>SH3RF2</i> | -0,41 | 1,29E-04 | 6,51E-03 |
| 6960300 | <i>HS.279842</i> | -0,41 | 1,28E-04 | 6,47E-03 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 6560327 | <i>ACAD10</i> | -0,41 | 1,27E-04 | 6,43E-03 |
| 4120008 | <i>ZNF33B</i> | -0,41 | 1,27E-04 | 6,43E-03 |
| 2070184 | <i>NTHL1</i> | -0,41 | 1,24E-04 | 6,32E-03 |
| 60403 | <i>ZFAND2B</i> | -0,41 | 1,23E-04 | 6,31E-03 |
| 7610402 | <i>HS.561735</i> | -0,41 | 1,22E-04 | 6,27E-03 |
| 4230228 | <i>CDK5RAP3</i> | -0,41 | 1,22E-04 | 6,27E-03 |
| 1850561 | <i>LMOD3</i> | -0,41 | 1,22E-04 | 6,27E-03 |
| 3450750 | <i>ZNF549</i> | -0,41 | 1,22E-04 | 6,27E-03 |
| 990224 | <i>FBXL19</i> | -0,41 | 1,22E-04 | 6,27E-03 |
| 2060482 | <i>KIAA0907</i> | -0,41 | 1,21E-04 | 6,24E-03 |
| 1570138 | <i>APTX</i> | -0,41 | 1,21E-04 | 6,24E-03 |
| 1820008 | <i>METTL7A</i> | -0,41 | 1,21E-04 | 6,22E-03 |
| 5220309 | <i>RILPL1</i> | -0,41 | 1,19E-04 | 6,17E-03 |
| 2480280 | <i>SORD</i> | -0,41 | 1,18E-04 | 6,12E-03 |
| 3170450 | <i>MBTD1</i> | -0,41 | 1,17E-04 | 6,10E-03 |
| 540382 | <i>RSAD1</i> | -0,41 | 1,17E-04 | 6,10E-03 |
| 1940301 | <i>MARVELD2</i> | -0,41 | 1,17E-04 | 6,09E-03 |
| 1500148 | <i>MAP3K7IP1</i> | -0,41 | 1,17E-04 | 6,09E-03 |
| 3890681 | <i>SLC41A3</i> | -0,41 | 1,16E-04 | 6,04E-03 |
| 6200615 | <i>SAPS2</i> | -0,41 | 1,13E-04 | 5,94E-03 |
| 2510441 | <i>TBC1D17</i> | -0,41 | 1,13E-04 | 5,94E-03 |
| 6550452 | <i>ACSM2A</i> | -0,41 | 1,13E-04 | 5,94E-03 |
| 6020136 | <i>FAHD2A</i> | -0,41 | 1,13E-04 | 5,94E-03 |
| 4040373 | <i>TSC1</i> | -0,41 | 1,13E-04 | 5,94E-03 |
| 1010647 | <i>TP53I13</i> | -0,41 | 1,12E-04 | 5,91E-03 |
| 1580093 | <i>SCYL1</i> | -0,41 | 1,11E-04 | 5,87E-03 |
| 4900474 | <i>MED23</i> | -0,41 | 1,10E-04 | 5,83E-03 |
| 1400435 | <i>TOMM70A</i> | -0,41 | 1,09E-04 | 5,81E-03 |
| 7000240 | <i>TTC14</i> | -0,41 | 1,09E-04 | 5,81E-03 |
| 6940484 | <i>ASPSCR1</i> | -0,41 | 1,09E-04 | 5,81E-03 |
| 3460731 | <i>TCP10L</i> | -0,41 | 1,08E-04 | 5,78E-03 |
| 2340632 | <i>INADL</i> | -0,41 | 1,08E-04 | 5,77E-03 |

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|---------|------------------|-------|----------|----------|
| 520017 | <i>PAPD5</i> | -0,41 | 1,07E-04 | 5,71E-03 |
| 1990433 | <i>RMI1</i> | -0,41 | 1,06E-04 | 5,70E-03 |
| 780187 | <i>C6ORF130</i> | -0,41 | 1,06E-04 | 5,70E-03 |
| 5810564 | <i>CMBL</i> | -0,42 | 1,05E-04 | 5,68E-03 |
| 2940372 | <i>DTWD2</i> | -0,42 | 1,05E-04 | 5,68E-03 |
| 6270634 | <i>TMEM120A</i> | -0,42 | 1,05E-04 | 5,66E-03 |
| 6580110 | <i>PAH</i> | -0,42 | 1,04E-04 | 5,65E-03 |
| 770093 | <i>HS.160602</i> | -0,42 | 1,03E-04 | 5,58E-03 |
| 1090646 | <i>FAM119A</i> | -0,42 | 1,02E-04 | 5,57E-03 |
| 4280343 | <i>COASY</i> | -0,42 | 1,02E-04 | 5,56E-03 |
| 1070358 | <i>HEXIM2</i> | -0,42 | 1,01E-04 | 5,54E-03 |
| 290465 | <i>FBXW5</i> | -0,42 | 1,00E-04 | 5,49E-03 |
| 3370128 | <i>TNFSF15</i> | -0,42 | 1,00E-04 | 5,49E-03 |
| 1410152 | <i>GJB1</i> | -0,42 | 9,93E-05 | 5,45E-03 |
| 6280521 | <i>LOC648399</i> | -0,42 | 9,86E-05 | 5,43E-03 |
| 630202 | <i>DFNB59</i> | -0,42 | 9,84E-05 | 5,43E-03 |
| 2570358 | <i>HNRPDL</i> | -0,42 | 9,81E-05 | 5,42E-03 |
| 7570209 | <i>ARMC1</i> | -0,42 | 9,80E-05 | 5,42E-03 |
| 6380673 | <i>TUBE1</i> | -0,42 | 9,70E-05 | 5,38E-03 |
| 2470722 | <i>TDRD1</i> | -0,42 | 9,70E-05 | 5,38E-03 |
| 4810445 | <i>PCOLCE2</i> | -0,42 | 9,69E-05 | 5,38E-03 |
| 2750328 | <i>PRNPIP</i> | -0,42 | 9,67E-05 | 5,38E-03 |
| 2360626 | <i>GPR175</i> | -0,42 | 9,59E-05 | 5,35E-03 |
| 20440 | <i>BHMT2</i> | -0,42 | 9,57E-05 | 5,34E-03 |
| 5290482 | <i>IFP38</i> | -0,42 | 9,50E-05 | 5,32E-03 |
| 6220202 | <i>ZADH1</i> | -0,42 | 9,50E-05 | 5,32E-03 |
| 4590154 | <i>ZDHH8</i> | -0,42 | 9,34E-05 | 5,25E-03 |
| 2510068 | <i>C1ORF51</i> | -0,42 | 9,14E-05 | 5,16E-03 |
| 6180538 | <i>GDI2</i> | -0,42 | 9,13E-05 | 5,16E-03 |
| 6650564 | <i>RPS27</i> | -0,42 | 9,09E-05 | 5,15E-03 |
| 5560328 | <i>SLC38A3</i> | -0,42 | 9,02E-05 | 5,12E-03 |
| 1850575 | <i>CHD6</i> | -0,42 | 9,01E-05 | 5,12E-03 |

Hepatology

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| 1090280 | <i>ZNF680</i> | -0,42 | 8,98E-05 | 5,12E-03 |
| 5810598 | <i>HS.556082</i> | -0,42 | 8,86E-05 | 5,06E-03 |
| 5490593 | <i>BDH1</i> | -0,42 | 8,84E-05 | 5,06E-03 |
| 3290044 | <i>TTC27</i> | -0,42 | 8,58E-05 | 4,95E-03 |
| 6290672 | <i>LOC728417</i> | -0,42 | 8,48E-05 | 4,89E-03 |
| 830609 | <i>RPL5</i> | -0,42 | 8,33E-05 | 4,82E-03 |
| 1030348 | <i>CDKN1B</i> | -0,42 | 8,27E-05 | 4,80E-03 |
| 6180408 | <i>NOSIP</i> | -0,42 | 8,19E-05 | 4,77E-03 |
| 3780411 | <i>C1ORF43</i> | -0,42 | 8,10E-05 | 4,72E-03 |
| 7000672 | <i>AGL</i> | -0,42 | 8,03E-05 | 4,69E-03 |
| 4060692 | <i>SUCLG2</i> | -0,42 | 7,95E-05 | 4,65E-03 |
| 360706 | <i>GRTP1</i> | -0,42 | 7,93E-05 | 4,65E-03 |
| 1710546 | <i>CHST12</i> | -0,42 | 7,83E-05 | 4,60E-03 |
| 630280 | <i>PRKCSH</i> | -0,42 | 7,68E-05 | 4,54E-03 |
| 3870068 | <i>NR1I2</i> | -0,42 | 7,66E-05 | 4,53E-03 |
| 4560288 | <i>ERBB3</i> | -0,42 | 7,59E-05 | 4,52E-03 |
| 7380619 | <i>LOC728037</i> | -0,42 | 7,58E-05 | 4,52E-03 |
| 1170523 | <i>TRIM13</i> | -0,42 | 7,54E-05 | 4,52E-03 |
| 6550754 | <i>EVL</i> | -0,42 | 7,51E-05 | 4,50E-03 |
| 1450403 | <i>TMEM129</i> | -0,42 | 7,30E-05 | 4,41E-03 |
| 7160747 | <i>C14ORF153</i> | -0,42 | 7,27E-05 | 4,40E-03 |
| 6110053 | <i>ZNF32</i> | -0,42 | 7,21E-05 | 4,38E-03 |
| 2600286 | <i>CCS</i> | -0,42 | 7,20E-05 | 4,37E-03 |
| 5090392 | <i>GMPR2</i> | -0,42 | 7,10E-05 | 4,32E-03 |
| 1740300 | <i>TFR2</i> | -0,42 | 7,07E-05 | 4,32E-03 |
| 870390 | <i>DEPDC6</i> | -0,42 | 7,02E-05 | 4,30E-03 |
| 7150132 | <i>PNN</i> | -0,42 | 7,00E-05 | 4,29E-03 |
| 3450537 | <i>DGAT2</i> | -0,43 | 6,75E-05 | 4,17E-03 |
| 6590139 | <i>LASS4</i> | -0,43 | 6,71E-05 | 4,15E-03 |
| 3170519 | <i>HARS2</i> | -0,43 | 6,60E-05 | 4,08E-03 |
| 2000288 | <i>CCDC25</i> | -0,43 | 6,54E-05 | 4,05E-03 |
| 7650504 | <i>CTAGE5</i> | -0,43 | 6,41E-05 | 4,00E-03 |

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|---------|------------------|-------|----------|----------|
| 3440431 | <i>ZNF682</i> | -0,43 | 6,40E-05 | 4,00E-03 |
| 5090445 | <i>RNF128</i> | -0,43 | 6,40E-05 | 4,00E-03 |
| 1990468 | <i>ADD3</i> | -0,43 | 6,39E-05 | 4,00E-03 |
| 3310400 | <i>IGF1</i> | -0,43 | 6,37E-05 | 4,00E-03 |
| 6940647 | <i>C16ORF58</i> | -0,43 | 6,37E-05 | 4,00E-03 |
| 4640333 | <i>ZNF76</i> | -0,43 | 6,33E-05 | 3,99E-03 |
| 4900689 | <i>LOC63920</i> | -0,43 | 6,19E-05 | 3,92E-03 |
| 6660201 | <i>GCDH</i> | -0,43 | 6,04E-05 | 3,84E-03 |
| 2690524 | <i>BLCAP</i> | -0,43 | 6,01E-05 | 3,83E-03 |
| 3390187 | <i>EFNA1</i> | -0,43 | 6,00E-05 | 3,83E-03 |
| 540156 | <i>PVRL3</i> | -0,43 | 5,92E-05 | 3,79E-03 |
| 7000341 | <i>LOC647834</i> | -0,43 | 5,89E-05 | 3,78E-03 |
| 1170255 | <i>LARGE</i> | -0,43 | 5,77E-05 | 3,71E-03 |
| 3140022 | <i>ZSCAN2</i> | -0,43 | 5,76E-05 | 3,71E-03 |
| 3940593 | <i>MFSD11</i> | -0,43 | 5,73E-05 | 3,69E-03 |
| 110390 | <i>SLC25A34</i> | -0,43 | 5,62E-05 | 3,65E-03 |
| 1980762 | <i>SAT2</i> | -0,43 | 5,50E-05 | 3,58E-03 |
| 4480575 | <i>FOXO4</i> | -0,43 | 5,50E-05 | 3,58E-03 |
| 3990739 | <i>KCNK5</i> | -0,43 | 5,48E-05 | 3,57E-03 |
| 4150575 | <i>LETMD1</i> | -0,43 | 5,44E-05 | 3,55E-03 |
| 5340450 | <i>LOC116236</i> | -0,43 | 5,40E-05 | 3,53E-03 |
| 6520523 | <i>IL27</i> | -0,43 | 5,34E-05 | 3,49E-03 |
| 4900333 | <i>HAGH</i> | -0,43 | 5,32E-05 | 3,49E-03 |
| 6980156 | <i>CIAO1</i> | -0,43 | 5,32E-05 | 3,49E-03 |
| 1570291 | <i>SLTM</i> | -0,43 | 5,28E-05 | 3,47E-03 |
| 2100215 | <i>MAF</i> | -0,43 | 5,27E-05 | 3,47E-03 |
| 4120341 | <i>ITGAE</i> | -0,43 | 5,23E-05 | 3,45E-03 |
| 3940056 | <i>AIG1</i> | -0,43 | 5,20E-05 | 3,43E-03 |
| 3190626 | <i>MAGT1</i> | -0,43 | 5,02E-05 | 3,33E-03 |
| 2690709 | <i>VIPR1</i> | -0,43 | 4,99E-05 | 3,32E-03 |
| 3170398 | <i>MAT2B</i> | -0,43 | 4,91E-05 | 3,28E-03 |
| 7000224 | <i>SIRT1</i> | -0,43 | 4,90E-05 | 3,28E-03 |

Hepatology

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| 670475 | <i>C4ORF19</i> | -0,43 | 4,90E-05 | 3,28E-03 |
| 7610356 | <i>SLC22A2</i> | -0,43 | 4,79E-05 | 3,22E-03 |
| 50601 | <i>PURA</i> | -0,43 | 4,69E-05 | 3,15E-03 |
| 6550689 | <i>WDR23</i> | -0,43 | 4,64E-05 | 3,13E-03 |
| 10343 | <i>MRPS5</i> | -0,43 | 4,58E-05 | 3,10E-03 |
| 3440500 | <i>ELP3</i> | -0,43 | 4,54E-05 | 3,08E-03 |
| 1170709 | <i>CDH2</i> | -0,43 | 4,52E-05 | 3,07E-03 |
| 5270743 | <i>PTPRA</i> | -0,43 | 4,44E-05 | 3,01E-03 |
| 6900014 | <i>RNUXA</i> | -0,44 | 4,42E-05 | 3,01E-03 |
| 5260440 | <i>ST3GAL6</i> | -0,44 | 4,42E-05 | 3,01E-03 |
| 20348 | <i>HS.340945</i> | -0,44 | 4,41E-05 | 3,01E-03 |
| 2100347 | <i>ZNF384</i> | -0,44 | 4,40E-05 | 3,01E-03 |
| 3390348 | <i>KIAA1772</i> | -0,44 | 4,35E-05 | 3,00E-03 |
| 5820343 | <i>ERCC5</i> | -0,44 | 4,34E-05 | 3,00E-03 |
| 4220053 | <i>SKAP1</i> | -0,44 | 4,19E-05 | 2,91E-03 |
| 5260343 | <i>SCG5</i> | -0,44 | 4,19E-05 | 2,91E-03 |
| 3140167 | <i>ZNF146</i> | -0,44 | 4,10E-05 | 2,86E-03 |
| 2600072 | <i>BOK</i> | -0,44 | 4,09E-05 | 2,86E-03 |
| 7150240 | <i>TRIM2</i> | -0,44 | 4,06E-05 | 2,84E-03 |
| 2470577 | <i>ZCWPW1</i> | -0,44 | 4,04E-05 | 2,83E-03 |
| 3930333 | <i>HS.28705</i> | -0,44 | 4,02E-05 | 2,83E-03 |
| 3850730 | <i>BSN</i> | -0,44 | 3,96E-05 | 2,79E-03 |
| 5310767 | <i>LRP5</i> | -0,44 | 3,92E-05 | 2,77E-03 |
| 4290110 | <i>CYP4F3</i> | -0,44 | 3,87E-05 | 2,75E-03 |
| 6420450 | <i>LIME1</i> | -0,44 | 3,84E-05 | 2,74E-03 |
| 610768 | <i>TAPT1</i> | -0,44 | 3,78E-05 | 2,73E-03 |
| 1190221 | <i>REXO4</i> | -0,44 | 3,75E-05 | 2,71E-03 |
| 70520 | <i>FGFR4</i> | -0,44 | 3,75E-05 | 2,71E-03 |
| 2230424 | <i>RBM25</i> | -0,44 | 3,74E-05 | 2,71E-03 |
| 2100546 | <i>ALDH8A1</i> | -0,44 | 3,66E-05 | 2,67E-03 |
| 4890553 | <i>RORC</i> | -0,44 | 3,65E-05 | 2,67E-03 |
| 7040307 | <i>UQCC</i> | -0,44 | 3,54E-05 | 2,60E-03 |

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| 6590082 | <i>HS.542993</i> | -0,44 | 3,51E-05 | 2,58E-03 |
| 1260327 | <i>DOCK4</i> | -0,44 | 3,48E-05 | 2,57E-03 |
| 5080682 | <i>CTDSP1</i> | -0,44 | 3,47E-05 | 2,56E-03 |
| 5810113 | <i>HS.282795</i> | -0,44 | 3,46E-05 | 2,56E-03 |
| 6130020 | <i>BLZF1</i> | -0,44 | 3,46E-05 | 2,56E-03 |
| 870451 | <i>ASB8</i> | -0,44 | 3,42E-05 | 2,54E-03 |
| 3130296 | <i>AMY2A</i> | -0,44 | 3,39E-05 | 2,52E-03 |
| 2640463 | <i>LOC652541</i> | -0,44 | 3,38E-05 | 2,52E-03 |
| 3610519 | <i>OFD1</i> | -0,44 | 3,37E-05 | 2,52E-03 |
| 3190048 | <i>ZNF688</i> | -0,44 | 3,30E-05 | 2,47E-03 |
| 5490603 | <i>LOC401019</i> | -0,44 | 3,26E-05 | 2,46E-03 |
| 2810709 | <i>SLC22A7</i> | -0,44 | 3,24E-05 | 2,45E-03 |
| 520706 | <i>UBE4A</i> | -0,44 | 3,24E-05 | 2,45E-03 |
| 4050491 | <i>TCEA3</i> | -0,44 | 3,22E-05 | 2,44E-03 |
| 6860026 | <i>ZNF358</i> | -0,44 | 3,13E-05 | 2,38E-03 |
| 6040017 | <i>FLJ20699</i> | -0,44 | 3,11E-05 | 2,37E-03 |
| 6840356 | <i>MGEA5</i> | -0,44 | 3,05E-05 | 2,33E-03 |
| 1410736 | <i>TMEM42</i> | -0,44 | 2,98E-05 | 2,29E-03 |
| 1170398 | <i>C10ORF57</i> | -0,44 | 2,89E-05 | 2,23E-03 |
| 2350044 | <i>LIPC</i> | -0,44 | 2,87E-05 | 2,23E-03 |
| 5720474 | <i>TMCO6</i> | -0,44 | 2,83E-05 | 2,21E-03 |
| 1430053 | <i>TTLL12</i> | -0,44 | 2,82E-05 | 2,21E-03 |
| 3450086 | <i>LOC149134</i> | -0,44 | 2,81E-05 | 2,20E-03 |
| 510209 | <i>LOC643310</i> | -0,45 | 2,74E-05 | 2,16E-03 |
| 6450300 | <i>GEMIN4</i> | -0,45 | 2,73E-05 | 2,15E-03 |
| 3870301 | <i>SORBS3</i> | -0,45 | 2,72E-05 | 2,15E-03 |
| 4210687 | <i>ZNF485</i> | -0,45 | 2,54E-05 | 2,04E-03 |
| 4060433 | <i>MAOB</i> | -0,45 | 2,45E-05 | 1,98E-03 |
| 630215 | <i>RAD51</i> | -0,45 | 2,45E-05 | 1,98E-03 |
| 1400070 | <i>TBC1D9</i> | -0,45 | 2,36E-05 | 1,93E-03 |
| 7510634 | <i>GPRC5C</i> | -0,45 | 2,33E-05 | 1,91E-03 |
| 6380010 | <i>HS.222909</i> | -0,45 | 2,32E-05 | 1,91E-03 |

Hepatology

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|---------|------------------|-------|----------|----------|
| 4070193 | <i>HS.291319</i> | -0,45 | 2,32E-05 | 1,91E-03 |
| 2570577 | <i>KLF15</i> | -0,45 | 2,31E-05 | 1,90E-03 |
| 6660544 | <i>C10ORF65</i> | -0,45 | 2,30E-05 | 1,90E-03 |
| 5340719 | <i>HS.163752</i> | -0,45 | 2,27E-05 | 1,88E-03 |
| 2000669 | <i>ARHGAP10</i> | -0,45 | 2,27E-05 | 1,88E-03 |
| 2140753 | <i>RPL14</i> | -0,45 | 2,23E-05 | 1,85E-03 |
| 4120722 | <i>NOL8</i> | -0,45 | 2,22E-05 | 1,85E-03 |
| 5290193 | <i>KCTD6</i> | -0,45 | 2,20E-05 | 1,83E-03 |
| 4610484 | <i>C14ORF93</i> | -0,45 | 2,17E-05 | 1,81E-03 |
| 6060402 | <i>HS.571741</i> | -0,45 | 2,11E-05 | 1,77E-03 |
| 2940528 | <i>OPRS1</i> | -0,45 | 2,10E-05 | 1,76E-03 |
| 1240446 | <i>CAT</i> | -0,45 | 2,10E-05 | 1,76E-03 |
| 3180154 | <i>HFE2</i> | -0,45 | 2,07E-05 | 1,75E-03 |
| 620202 | <i>OSGIN1</i> | -0,45 | 2,07E-05 | 1,75E-03 |
| 10594 | <i>PECI</i> | -0,45 | 2,02E-05 | 1,72E-03 |
| 1510722 | <i>RNF130</i> | -0,45 | 1,99E-05 | 1,70E-03 |
| 5290762 | <i>UTS2</i> | -0,45 | 1,96E-05 | 1,68E-03 |
| 1050386 | <i>SMUG1</i> | -0,45 | 1,94E-05 | 1,67E-03 |
| 4560497 | <i>ETNK2</i> | -0,45 | 1,91E-05 | 1,66E-03 |
| 5420373 | <i>FUT6</i> | -0,45 | 1,91E-05 | 1,66E-03 |
| 520053 | <i>OXER1</i> | -0,45 | 1,86E-05 | 1,63E-03 |
| 5810059 | <i>HS.18849</i> | -0,45 | 1,85E-05 | 1,62E-03 |
| 1170482 | <i>PEX14</i> | -0,45 | 1,76E-05 | 1,55E-03 |
| 1070709 | <i>PLEKHH3</i> | -0,46 | 1,71E-05 | 1,52E-03 |
| 2710196 | <i>UTP6</i> | -0,46 | 1,71E-05 | 1,52E-03 |
| 1430767 | <i>ING4</i> | -0,46 | 1,71E-05 | 1,52E-03 |
| 1820482 | <i>NDUFB10</i> | -0,46 | 1,71E-05 | 1,52E-03 |
| 840358 | <i>EXOSC10</i> | -0,46 | 1,69E-05 | 1,51E-03 |
| 2470634 | <i>PBX3</i> | -0,46 | 1,69E-05 | 1,51E-03 |
| 5290403 | <i>WDR59</i> | -0,46 | 1,68E-05 | 1,51E-03 |
| 670273 | <i>DPYD</i> | -0,46 | 1,65E-05 | 1,49E-03 |
| 2140600 | <i>TTC36</i> | -0,46 | 1,59E-05 | 1,44E-03 |

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|---------|------------------|-------|----------|----------|
| 7380202 | <i>NR2F2</i> | -0,46 | 1,56E-05 | 1,42E-03 |
| 6620050 | <i>IFFO</i> | -0,46 | 1,55E-05 | 1,42E-03 |
| 2900079 | <i>LOC647389</i> | -0,46 | 1,55E-05 | 1,42E-03 |
| 3420195 | <i>ATPBD1B</i> | -0,46 | 1,54E-05 | 1,42E-03 |
| 6650324 | <i>PLEKHA1</i> | -0,46 | 1,54E-05 | 1,42E-03 |
| 6650121 | <i>C1ORF71</i> | -0,46 | 1,54E-05 | 1,42E-03 |
| 1850360 | <i>EIF4EBP3</i> | -0,46 | 1,51E-05 | 1,40E-03 |
| 2810615 | <i>GRB10</i> | -0,46 | 1,50E-05 | 1,39E-03 |
| 4560019 | <i>MBOAT2</i> | -0,46 | 1,48E-05 | 1,38E-03 |
| 7650615 | <i>GRHPR</i> | -0,46 | 1,46E-05 | 1,36E-03 |
| 5820427 | <i>PDIK1L</i> | -0,46 | 1,45E-05 | 1,36E-03 |
| 3180347 | <i>LOC285359</i> | -0,46 | 1,45E-05 | 1,36E-03 |
| 2480132 | <i>LOC554203</i> | -0,46 | 1,44E-05 | 1,36E-03 |
| 1010600 | <i>LRRC3</i> | -0,46 | 1,43E-05 | 1,34E-03 |
| 2320392 | <i>C12ORF65</i> | -0,46 | 1,37E-05 | 1,29E-03 |
| 3830519 | <i>MKKS</i> | -0,46 | 1,33E-05 | 1,27E-03 |
| 840021 | <i>LOC643692</i> | -0,46 | 1,33E-05 | 1,27E-03 |
| 3940309 | <i>CDAN1</i> | -0,46 | 1,21E-05 | 1,17E-03 |
| 1770079 | <i>LOC440350</i> | -0,46 | 1,21E-05 | 1,17E-03 |
| 1580356 | <i>TMED1</i> | -0,46 | 1,21E-05 | 1,17E-03 |
| 7550431 | <i>REV1</i> | -0,46 | 1,20E-05 | 1,17E-03 |
| 1440091 | <i>GON4L</i> | -0,46 | 1,20E-05 | 1,17E-03 |
| 3290475 | <i>NFYC</i> | -0,46 | 1,18E-05 | 1,15E-03 |
| 5130682 | <i>PRNPIP</i> | -0,46 | 1,17E-05 | 1,15E-03 |
| 7570553 | <i>POLM</i> | -0,46 | 1,16E-05 | 1,14E-03 |
| 7560164 | <i>GCAT</i> | -0,46 | 1,16E-05 | 1,14E-03 |
| 7040519 | <i>FOLH1</i> | -0,46 | 1,11E-05 | 1,11E-03 |
| 2000494 | <i>AR</i> | -0,47 | 1,08E-05 | 1,08E-03 |
| 1660564 | <i>SLC6A1</i> | -0,47 | 1,05E-05 | 1,06E-03 |
| 60427 | <i>NUCB2</i> | -0,47 | 1,05E-05 | 1,05E-03 |
| 6450605 | <i>DDOST</i> | -0,47 | 1,03E-05 | 1,03E-03 |
| 450445 | <i>NSUN5</i> | -0,47 | 9,90E-06 | 1,00E-03 |

Hepatology

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|---------|--------------------|-------|----------|----------|
| 7650689 | <i>HS.310040</i> | -0,47 | 9,83E-06 | 1,00E-03 |
| 7380291 | <i>CYP2D7P1</i> | -0,47 | 9,77E-06 | 1,00E-03 |
| 6940474 | <i>HS.317399</i> | -0,47 | 9,69E-06 | 9,94E-04 |
| 3370215 | <i>ZG16</i> | -0,47 | 9,24E-06 | 9,59E-04 |
| 870528 | <i>HS.16587</i> | -0,47 | 9,22E-06 | 9,58E-04 |
| 7550292 | <i>SELENBP1</i> | -0,47 | 9,19E-06 | 9,57E-04 |
| 3780240 | <i>FLJ39653</i> | -0,47 | 9,15E-06 | 9,55E-04 |
| 4060768 | <i>DBT</i> | -0,47 | 8,52E-06 | 9,02E-04 |
| 1440133 | <i>NGFRAP1</i> | -0,47 | 8,17E-06 | 8,69E-04 |
| 6760661 | <i>CAPN5</i> | -0,47 | 7,39E-06 | 7,99E-04 |
| 1710639 | <i>RBM4B</i> | -0,47 | 7,26E-06 | 7,92E-04 |
| 2750170 | <i>SORBS2</i> | -0,47 | 7,04E-06 | 7,73E-04 |
| 2810367 | <i>ABCB6</i> | -0,47 | 6,67E-06 | 7,43E-04 |
| 4880113 | <i>LOC649639</i> | -0,48 | 6,25E-06 | 7,09E-04 |
| 6510600 | <i>MLLT10</i> | -0,48 | 6,01E-06 | 6,86E-04 |
| 2900253 | <i>HS.487766</i> | -0,48 | 5,96E-06 | 6,82E-04 |
| 2070735 | <i>STAG3L1</i> | -0,48 | 5,91E-06 | 6,78E-04 |
| 5860307 | <i>PRKAB2</i> | -0,48 | 5,89E-06 | 6,77E-04 |
| 1300041 | <i>C19ORF42</i> | -0,48 | 5,80E-06 | 6,71E-04 |
| 3420553 | <i>ENPP1</i> | -0,48 | 5,79E-06 | 6,71E-04 |
| 2260181 | <i>SLC38A4</i> | -0,48 | 5,47E-06 | 6,38E-04 |
| 3310592 | <i>ZNF394</i> | -0,48 | 5,13E-06 | 6,08E-04 |
| 1510554 | <i>SPIN3</i> | -0,48 | 5,09E-06 | 6,06E-04 |
| 6980377 | <i>MTMR15</i> | -0,48 | 5,08E-06 | 6,06E-04 |
| 5130438 | <i>PIPOX</i> | -0,48 | 4,50E-06 | 5,52E-04 |
| 6660240 | <i>FGFR4</i> | -0,48 | 4,36E-06 | 5,38E-04 |
| 2970167 | <i>NSUN5C</i> | -0,48 | 4,35E-06 | 5,38E-04 |
| 6620201 | <i>KLHL24</i> | -0,48 | 4,31E-06 | 5,35E-04 |
| 5290474 | <i>SMARCA2</i> | -0,48 | 4,14E-06 | 5,20E-04 |
| 3190066 | <i>ARFGAP2</i> | -0,48 | 4,02E-06 | 5,08E-04 |
| 1230347 | <i>RERE</i> | -0,49 | 3,77E-06 | 4,80E-04 |
| 4040719 | <i>BA16L21.2.1</i> | -0,49 | 3,72E-06 | 4,75E-04 |

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|---------|------------------|-------|----------|----------|
| 4060136 | <i>SLTM</i> | -0,49 | 3,69E-06 | 4,72E-04 |
| 2940113 | <i>AGL</i> | -0,49 | 3,68E-06 | 4,72E-04 |
| 270093 | <i>MYO18A</i> | -0,49 | 3,61E-06 | 4,67E-04 |
| 580598 | <i>ANKZF1</i> | -0,49 | 3,56E-06 | 4,63E-04 |
| 4060669 | <i>CCDC76</i> | -0,49 | 3,53E-06 | 4,61E-04 |
| 4570575 | <i>ST7</i> | -0,49 | 3,42E-06 | 4,52E-04 |
| 3140408 | <i>PPP1R16A</i> | -0,49 | 3,15E-06 | 4,22E-04 |
| 4250167 | <i>SOX13</i> | -0,49 | 3,03E-06 | 4,09E-04 |
| 1780348 | <i>FH</i> | -0,49 | 2,98E-06 | 4,03E-04 |
| 6330653 | <i>FLJ45244</i> | -0,49 | 2,92E-06 | 3,97E-04 |
| 6060601 | <i>HS.536664</i> | -0,49 | 2,79E-06 | 3,83E-04 |
| 130041 | <i>NR1I3</i> | -0,49 | 2,78E-06 | 3,82E-04 |
| 2230376 | <i>C4ORF34</i> | -0,49 | 2,73E-06 | 3,78E-04 |
| 3800079 | <i>C19ORF56</i> | -0,49 | 2,60E-06 | 3,63E-04 |
| 830598 | <i>CLK2</i> | -0,49 | 2,54E-06 | 3,56E-04 |
| 1770148 | <i>FLJ20444</i> | -0,49 | 2,40E-06 | 3,38E-04 |
| 7200195 | <i>TBX3</i> | -0,49 | 2,39E-06 | 3,38E-04 |
| 1710168 | <i>NDUFS3</i> | -0,50 | 2,23E-06 | 3,22E-04 |
| 4480519 | <i>EDEM2</i> | -0,50 | 2,22E-06 | 3,21E-04 |
| 3140138 | <i>C12ORF47</i> | -0,50 | 2,18E-06 | 3,18E-04 |
| 5340138 | <i>MRPS18B</i> | -0,50 | 2,16E-06 | 3,17E-04 |
| 6290575 | <i>ABCG5</i> | -0,50 | 2,11E-06 | 3,11E-04 |
| 240035 | <i>RUNDC3B</i> | -0,50 | 2,08E-06 | 3,06E-04 |
| 5810273 | <i>LOC492311</i> | -0,50 | 2,08E-06 | 3,06E-04 |
| 2710358 | <i>ENOSF1</i> | -0,50 | 1,79E-06 | 2,72E-04 |
| 2370594 | <i>GSTA5</i> | -0,50 | 1,65E-06 | 2,55E-04 |
| 7100274 | <i>ALDH6A1</i> | -0,50 | 1,62E-06 | 2,50E-04 |
| 4280167 | <i>ZNF500</i> | -0,50 | 1,58E-06 | 2,47E-04 |
| 5490270 | <i>LOC92270</i> | -0,50 | 1,54E-06 | 2,42E-04 |
| 5390148 | <i>LOC642333</i> | -0,50 | 1,49E-06 | 2,35E-04 |
| 7210092 | <i>TRIT1</i> | -0,50 | 1,48E-06 | 2,34E-04 |
| 3780068 | <i>ATPIF1</i> | -0,50 | 1,36E-06 | 2,18E-04 |

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|---------|------------------|-------|----------|----------|
| 2490730 | <i>SF4</i> | -0,51 | 1,27E-06 | 2,07E-04 |
| 4850576 | <i>SLCO1B3</i> | -0,51 | 1,26E-06 | 2,06E-04 |
| 1090367 | <i>BIVM</i> | -0,51 | 1,23E-06 | 2,03E-04 |
| 2070279 | <i>PIGV</i> | -0,51 | 1,19E-06 | 1,98E-04 |
| 650020 | <i>SYNJ1</i> | -0,51 | 1,17E-06 | 1,96E-04 |
| 2120068 | <i>MTMR4</i> | -0,51 | 9,98E-07 | 1,72E-04 |
| 7000474 | <i>GARNL1</i> | -0,51 | 9,37E-07 | 1,63E-04 |
| 870181 | <i>LOC653314</i> | -0,51 | 9,30E-07 | 1,62E-04 |
| 5390372 | <i>C2ORF64</i> | -0,51 | 9,25E-07 | 1,62E-04 |
| 2640619 | <i>ZNF91</i> | -0,51 | 8,92E-07 | 1,56E-04 |
| 3990608 | <i>MAN2A1</i> | -0,51 | 7,69E-07 | 1,38E-04 |
| 5870605 | <i>HS.145049</i> | -0,51 | 7,68E-07 | 1,38E-04 |
| 6580612 | <i>NUP43</i> | -0,51 | 7,55E-07 | 1,38E-04 |
| 3190338 | <i>HDHD3</i> | -0,52 | 7,33E-07 | 1,34E-04 |
| 5820202 | <i>LOC644131</i> | -0,52 | 6,70E-07 | 1,25E-04 |
| 4850538 | <i>PAOX</i> | -0,52 | 5,78E-07 | 1,10E-04 |
| 5090603 | <i>FAM73B</i> | -0,52 | 5,57E-07 | 1,08E-04 |
| 4260377 | <i>HAX1</i> | -0,52 | 5,26E-07 | 1,04E-04 |
| 2070189 | <i>ZNF451</i> | -0,52 | 4,50E-07 | 9,07E-05 |
| 5810619 | <i>TADA1L</i> | -0,52 | 4,44E-07 | 8,98E-05 |
| 6450722 | <i>SETDB1</i> | -0,53 | 3,87E-07 | 8,11E-05 |
| 6350341 | <i>SDHAP3</i> | -0,53 | 3,22E-07 | 6,92E-05 |
| 6480674 | <i>HCN3</i> | -0,53 | 3,08E-07 | 6,82E-05 |
| 7320646 | <i>EPB41L5</i> | -0,53 | 2,88E-07 | 6,53E-05 |
| 7550192 | <i>SLC16A10</i> | -0,53 | 2,41E-07 | 5,61E-05 |
| 1470753 | <i>PIK3R1</i> | -0,53 | 2,41E-07 | 5,61E-05 |
| 2100431 | <i>RCN3</i> | -0,53 | 2,38E-07 | 5,61E-05 |
| 1090204 | <i>TTC17</i> | -0,54 | 1,99E-07 | 4,92E-05 |
| 1980180 | <i>C9ORF95</i> | -0,54 | 1,86E-07 | 4,69E-05 |
| 2630619 | <i>RNF20</i> | -0,54 | 1,83E-07 | 4,65E-05 |
| 70161 | <i>PKD2</i> | -0,54 | 1,64E-07 | 4,27E-05 |
| 1580601 | <i>USPL1</i> | -0,54 | 1,58E-07 | 4,18E-05 |

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|---------|------------------|-------|----------|----------|
| 5960196 | <i>MOGAT1</i> | -0,54 | 1,35E-07 | 3,75E-05 |
| 940500 | <i>CLDN14</i> | -0,54 | 1,34E-07 | 3,74E-05 |
| 6060553 | <i>RBP5</i> | -0,55 | 9,86E-08 | 3,02E-05 |
| 670397 | <i>BRD8</i> | -0,55 | 9,70E-08 | 3,00E-05 |
| 4070091 | <i>RORC</i> | -0,55 | 9,08E-08 | 2,87E-05 |
| 1170112 | <i>LCAT</i> | -0,55 | 8,69E-08 | 2,82E-05 |
| 1190673 | <i>LMAN2L</i> | -0,55 | 8,46E-08 | 2,79E-05 |
| 4060543 | <i>SEMA4G</i> | -0,55 | 7,59E-08 | 2,60E-05 |
| 5960678 | <i>NISCH</i> | -0,55 | 6,62E-08 | 2,39E-05 |
| 7210300 | <i>C10ORF104</i> | -0,55 | 6,62E-08 | 2,39E-05 |
| 6980253 | <i>PTPLB</i> | -0,56 | 5,73E-08 | 2,12E-05 |
| 3830661 | <i>HS.298873</i> | -0,56 | 4,49E-08 | 1,74E-05 |
| 6350360 | <i>IMPA1</i> | -0,56 | 3,43E-08 | 1,38E-05 |
| 3840463 | <i>TADA1L</i> | -0,56 | 3,36E-08 | 1,37E-05 |
| 2060228 | <i>RNF43</i> | -0,57 | 3,12E-08 | 1,29E-05 |
| 2810364 | <i>KLHDC2</i> | -0,57 | 3,11E-08 | 1,29E-05 |
| 1430735 | <i>NET1</i> | -0,57 | 2,93E-08 | 1,25E-05 |
| 1400541 | <i>SLC6A13</i> | -0,57 | 2,45E-08 | 1,07E-05 |
| 5420719 | <i>C2ORF42</i> | -0,57 | 1,77E-08 | 8,15E-06 |
| 4890167 | <i>CHAD</i> | -0,58 | 8,42E-09 | 4,46E-06 |
| 5720154 | <i>ZBTB48</i> | -0,59 | 6,44E-09 | 3,64E-06 |
| 4480114 | <i>F11</i> | -0,60 | 3,33E-09 | 2,28E-06 |
| 5490524 | <i>ZNF302</i> | -0,60 | 2,34E-09 | 1,73E-06 |
| 4120753 | <i>ZZZ3</i> | -0,62 | 6,76E-10 | 6,32E-07 |
| 4040520 | <i>HAO2</i> | -0,62 | 6,17E-10 | 5,90E-07 |
| 4810433 | <i>MTMR10</i> | -0,64 | 1,03E-10 | 1,67E-07 |
| 3710711 | <i>STAG3L2</i> | -0,66 | 1,88E-11 | 3,99E-08 |
| 6510661 | <i>SS18L1</i> | -0,67 | 7,72E-12 | 2,22E-08 |

S6. DE genes between KD1 vs Mock and KD2 vs mock in HepG2 after Inc18q22.2 knockdown. 1821 genes were overlapping between KD1 vs Mock and KD2 vs Mock from which 1625 were in the same direction (this table) and 196 in opposite direction. All genes are significant at FDR<0.01.

| Ensembl Gene ID | Official gene name | KD1 vs Mock (HepG2) | | KD2 vs Mock (HepG2) | |
|-----------------|--------------------|---------------------|-----------|---------------------|-----------|
| | | Log2 Fold Change | FDR | Log2 Fold Change | FDR |
| ENSG00000132031 | <i>MATN3</i> | -3,73 | 0,00E+00 | -2,77 | 1,01E-252 |
| ENSG00000135919 | <i>SERPINE2</i> | -2,92 | 7,17E-165 | -2,85 | 5,18E-156 |
| ENSG00000196136 | <i>SERPINA3</i> | -3,53 | 1,17E-133 | -3,81 | 2,62E-154 |
| ENSG00000103888 | <i>KIAA1199</i> | -2,58 | 1,31E-161 | -2,16 | 1,90E-118 |
| ENSG00000116016 | <i>EPAS1</i> | -0,90 | 1,70E-51 | -1,31 | 2,10E-106 |
| ENSG00000137801 | <i>THBS1</i> | -1,17 | 1,03E-45 | -1,73 | 2,38E-93 |
| ENSG00000115594 | <i>IL1R1</i> | -0,89 | 9,34E-28 | -1,62 | 4,80E-85 |
| ENSG00000124762 | <i>CDKN1A</i> | -0,46 | 6,45E-09 | -1,49 | 2,86E-79 |
| ENSG00000167658 | <i>EEF2</i> | -0,42 | 3,76E-16 | -0,94 | 2,37E-77 |
| ENSG00000147403 | <i>RPL10</i> | -0,51 | 4,27E-19 | -1,04 | 1,83E-75 |
| ENSG00000155093 | <i>PTPRN2</i> | -1,66 | 6,09E-71 | -1,64 | 2,08E-68 |
| ENSG00000117394 | <i>SLC2A1</i> | -2,98 | 0,00E+00 | -1,10 | 6,59E-66 |
| ENSG00000179218 | <i>CALR</i> | -0,20 | 3,15E-03 | -1,04 | 1,51E-62 |
| ENSG00000257017 | <i>HP</i> | -0,45 | 2,13E-08 | -1,30 | 1,03E-61 |
| ENSG00000108175 | <i>ZMIZ1</i> | -0,45 | 1,81E-08 | -1,33 | 7,72E-61 |
| ENSG00000118523 | <i>CTGF</i> | -1,95 | 8,34E-49 | -2,17 | 6,74E-60 |
| ENSG00000146072 | <i>TNFRSF21</i> | -1,43 | 1,42E-69 | -1,32 | 6,61E-59 |
| ENSG00000171617 | <i>ENC1</i> | -1,62 | 9,68E-116 | -1,12 | 2,28E-56 |
| ENSG00000188157 | <i>AGRN</i> | -1,68 | 1,45E-125 | -1,06 | 3,69E-52 |
| ENSG00000139514 | <i>SLC7A1</i> | -1,03 | 6,47E-47 | -1,10 | 4,54E-52 |
| ENSG00000108932 | <i>LOC440459</i> | -2,76 | 3,25E-152 | -1,43 | 4,12E-49 |
| ENSG00000144677 | <i>CTDSPL</i> | -1,77 | 1,27E-79 | -1,37 | 1,36E-48 |
| ENSG00000142178 | <i>SIK1</i> | -1,69 | 1,51E-61 | -1,48 | 3,27E-47 |
| ENSG00000103257 | <i>SLC7A5</i> | -0,31 | 2,84E-05 | -1,01 | 1,12E-46 |
| ENSG00000069702 | <i>TGFBR3</i> | -1,73 | 4,78E-117 | -1,07 | 6,89E-46 |
| ENSG00000130513 | <i>GDF15</i> | -1,90 | 1,15E-164 | -0,98 | 1,20E-45 |
| ENSG00000140807 | <i>NKD1</i> | -0,66 | 2,60E-13 | -1,24 | 4,35E-43 |
| ENSG00000131016 | <i>AKAP12</i> | -2,23 | 1,13E-189 | -1,01 | 3,25E-41 |

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|-----------------|-------------------|-------|-----------|-------|----------|
| ENSG00000142541 | <i>RPL13A</i> | -0,78 | 1,99E-43 | -0,76 | 1,49E-40 |
| ENSG00000198561 | <i>CTNND1</i> | -0,56 | 1,71E-17 | -0,86 | 3,42E-40 |
| ENSG00000143878 | <i>RHOB</i> | -0,29 | 3,97E-04 | -1,02 | 6,81E-40 |
| ENSG00000185269 | <i>NOTUM</i> | -2,01 | 6,04E-91 | -1,31 | 1,09E-39 |
| ENSG00000125730 | <i>C3</i> | -0,70 | 1,81E-22 | -0,94 | 3,12E-39 |
| ENSG00000087916 | <i>SLC6A14</i> | -3,15 | 1,12E-65 | -2,26 | 3,19E-39 |
| ENSG00000116285 | <i>ERRF1</i> | -1,82 | 3,94E-96 | -1,16 | 5,61E-39 |
| ENSG00000156535 | <i>CD109</i> | -1,58 | 1,33E-28 | -1,90 | 2,34E-38 |
| ENSG00000171552 | <i>BCL2L1</i> | -0,50 | 5,19E-18 | -0,73 | 1,69E-36 |
| ENSG00000021300 | <i>PLEKHB1</i> | -1,17 | 8,76E-24 | -1,50 | 2,97E-36 |
| ENSG00000142534 | <i>RPS11</i> | -0,76 | 3,65E-41 | -0,71 | 4,87E-36 |
| ENSG00000104760 | <i>FGL1</i> | -0,77 | 1,56E-22 | -0,98 | 9,83E-36 |
| ENSG00000168386 | <i>FILIP1L</i> | -2,66 | 3,09E-141 | -1,29 | 1,13E-35 |
| ENSG00000160862 | <i>AZGP1</i> | -0,66 | 9,96E-12 | -1,21 | 6,75E-35 |
| ENSG00000118785 | <i>SPP1</i> | -0,85 | 1,61E-22 | -1,06 | 2,35E-34 |
| ENSG00000112414 | <i>GPR126</i> | -1,32 | 1,86E-78 | -0,87 | 4,08E-34 |
| ENSG00000101346 | <i>POFUT1</i> | -0,55 | 1,58E-11 | -0,98 | 1,35E-33 |
| ENSG00000096433 | <i>ITPR3</i> | -1,66 | 5,40E-51 | -1,33 | 2,77E-33 |
| ENSG00000115414 | <i>FN1</i> | -1,07 | 2,14E-61 | -0,79 | 2,78E-33 |
| ENSG00000169696 | <i>ASPSCR1</i> | -1,09 | 1,31E-34 | -1,07 | 2,91E-33 |
| ENSG00000106804 | <i>C5</i> | -1,44 | 4,65E-97 | -0,84 | 5,17E-33 |
| ENSG00000049759 | <i>NEDD4L</i> | -0,30 | 4,50E-05 | -0,85 | 7,14E-33 |
| ENSG00000166900 | <i>STX3</i> | -0,72 | 4,42E-10 | -1,40 | 1,55E-32 |
| ENSG00000175061 | <i>NCRNA00188</i> | -0,65 | 1,37E-16 | -0,93 | 5,19E-32 |
| ENSG00000083845 | <i>RPS5</i> | -0,69 | 1,09E-26 | -0,76 | 8,77E-32 |
| ENSG00000132688 | <i>NES</i> | -1,89 | 2,37E-62 | -1,30 | 1,90E-31 |
| ENSG00000173706 | <i>HEG1</i> | -0,95 | 3,24E-29 | -1,00 | 2,59E-31 |
| ENSG00000197122 | <i>SRC</i> | -0,85 | 7,30E-29 | -0,89 | 5,53E-31 |
| ENSG00000152291 | <i>TGOLN2</i> | -0,44 | 9,26E-13 | -0,71 | 1,05E-30 |
| ENSG00000141458 | <i>NPC1</i> | -0,99 | 9,75E-38 | -0,89 | 2,02E-30 |
| ENSG00000124766 | <i>SOX4</i> | -1,03 | 1,28E-14 | -1,56 | 3,46E-30 |
| ENSG00000167470 | <i>MIDN</i> | -0,99 | 1,98E-28 | -1,02 | 1,23E-29 |

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|-----------------|----------------|-------|----------|-------|----------|
| ENSG00000175215 | <i>CTDSP2</i> | -0,28 | 4,77E-04 | -0,85 | 1,35E-29 |
| ENSG00000168497 | <i>SDPR</i> | -1,04 | 9,39E-23 | -1,22 | 1,65E-29 |
| ENSG00000136689 | <i>IL1RN</i> | -0,68 | 7,40E-18 | -0,90 | 1,83E-29 |
| ENSG00000116194 | <i>ANGPTL1</i> | -2,62 | 9,02E-43 | -2,07 | 1,53E-28 |
| ENSG00000130741 | <i>EIF2S3</i> | -0,75 | 5,41E-25 | -0,81 | 3,92E-28 |
| ENSG00000080618 | <i>CPB2</i> | -0,55 | 1,36E-07 | -1,15 | 3,95E-28 |
| ENSG00000082781 | <i>ITGB5</i> | -1,07 | 1,27E-51 | -0,78 | 4,81E-28 |
| ENSG00000117289 | <i>TXNIP</i> | -1,13 | 6,69E-31 | -1,08 | 5,06E-28 |
| ENSG00000231500 | <i>RPS18</i> | -0,78 | 2,14E-42 | -0,62 | 5,50E-27 |
| ENSG00000147526 | <i>TACC1</i> | -1,34 | 4,34E-39 | -1,10 | 1,14E-26 |
| ENSG00000141429 | <i>GALNT1</i> | -0,43 | 3,95E-08 | -0,83 | 1,23E-26 |
| ENSG00000057019 | <i>DCBLD2</i> | -0,87 | 4,20E-31 | -0,81 | 2,60E-26 |
| ENSG00000155090 | <i>KLF10</i> | -1,13 | 1,95E-24 | -1,18 | 3,97E-26 |
| ENSG00000076356 | <i>PLXNA2</i> | -0,34 | 4,44E-03 | -1,22 | 5,54E-26 |
| ENSG00000169242 | <i>EFNA1</i> | -1,18 | 2,91E-46 | -0,88 | 7,64E-26 |
| ENSG00000129422 | <i>MTUS1</i> | -1,13 | 2,24E-55 | -0,77 | 7,77E-26 |
| ENSG00000063046 | <i>EIF4B</i> | -0,39 | 5,20E-10 | -0,65 | 8,41E-26 |
| ENSG00000176619 | <i>LMNB2</i> | -0,38 | 1,32E-04 | -0,98 | 8,98E-26 |
| ENSG00000184840 | <i>TMED9</i> | -0,51 | 7,17E-13 | -0,73 | 4,68E-25 |
| ENSG00000115363 | <i>FAM176A</i> | -0,66 | 1,69E-09 | -1,15 | 4,69E-25 |
| ENSG00000111371 | <i>SLC38A1</i> | -1,10 | 1,11E-63 | -0,69 | 5,46E-25 |
| ENSG00000134109 | <i>EDEM1</i> | -0,30 | 9,48E-04 | -0,89 | 7,21E-25 |
| ENSG00000114698 | <i>PLSCR4</i> | -2,67 | 9,76E-44 | -1,89 | 3,08E-24 |
| ENSG00000143515 | <i>ATP8B2</i> | -0,56 | 1,62E-10 | -0,90 | 3,18E-24 |
| ENSG00000146859 | <i>TMEM140</i> | -0,47 | 9,12E-04 | -1,40 | 4,60E-24 |
| ENSG00000013364 | <i>MVP</i> | -0,53 | 5,07E-07 | -1,05 | 8,04E-24 |
| ENSG00000108375 | <i>RNF43</i> | -0,52 | 2,35E-10 | -0,81 | 1,28E-23 |
| ENSG00000142871 | <i>CYR61</i> | -1,63 | 9,30E-37 | -1,29 | 1,66E-23 |
| ENSG00000188846 | <i>RPL14</i> | -0,57 | 1,48E-21 | -0,60 | 1,73E-23 |
| ENSG00000159674 | <i>SPON2</i> | -1,31 | 3,34E-24 | -1,31 | 1,82E-23 |
| ENSG00000145592 | <i>RPL37</i> | -1,00 | 7,95E-47 | -0,71 | 2,03E-23 |
| ENSG00000100097 | <i>LGALS1</i> | -1,35 | 3,41E-44 | -0,96 | 2,55E-23 |

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|-----------------|----------------|-------|----------|-------|----------|
| ENSG00000113739 | <i>STC2</i> | -1,67 | 5,88E-69 | -0,95 | 2,63E-23 |
| ENSG00000003989 | <i>SLC7A2</i> | -1,78 | 1,99E-88 | -0,90 | 2,88E-23 |
| ENSG00000142949 | <i>PTPRF</i> | -0,59 | 2,39E-16 | -0,71 | 3,11E-23 |
| ENSG00000170889 | <i>RPS9</i> | -0,66 | 1,45E-28 | -0,59 | 4,13E-23 |
| ENSG00000070756 | <i>PABPC1</i> | -0,64 | 4,84E-24 | -0,63 | 5,71E-23 |
| ENSG00000111859 | <i>NEDD9</i> | -1,58 | 1,20E-72 | -0,88 | 8,09E-23 |
| ENSG00000213853 | <i>EMP2</i> | -0,92 | 9,23E-18 | -1,06 | 1,59E-22 |
| ENSG00000169100 | <i>SLC25A6</i> | -0,68 | 1,55E-22 | -0,68 | 1,97E-22 |
| ENSG00000094975 | <i>C1ORF9</i> | -0,30 | 5,53E-03 | -0,99 | 2,25E-22 |
| ENSG00000171314 | <i>PGAM1</i> | -1,20 | 6,56E-48 | -0,81 | 2,93E-22 |
| ENSG00000102934 | <i>PLLP</i> | -0,63 | 3,79E-10 | -0,99 | 3,51E-22 |
| ENSG00000244731 | <i>C4A</i> | -0,25 | 4,37E-03 | -0,79 | 4,16E-22 |
| ENSG00000148411 | <i>NACC2</i> | -0,32 | 8,63E-03 | -1,09 | 4,48E-22 |
| ENSG00000172175 | <i>MALT1</i> | -0,94 | 6,52E-23 | -0,93 | 4,96E-22 |
| ENSG00000155380 | <i>SLC16A1</i> | -1,06 | 1,04E-44 | -0,74 | 5,36E-22 |
| ENSG00000114942 | <i>EEF1B2</i> | -0,49 | 1,12E-16 | -0,57 | 6,91E-22 |
| ENSG00000105193 | <i>RPS16</i> | -0,64 | 9,62E-19 | -0,69 | 9,42E-22 |
| ENSG00000130147 | <i>SH3BP4</i> | -0,64 | 4,18E-17 | -0,73 | 1,26E-21 |
| ENSG00000068650 | <i>ATP11A</i> | -0,78 | 4,15E-22 | -0,78 | 1,27E-21 |
| ENSG00000063177 | <i>RPL18</i> | -0,55 | 2,18E-17 | -0,62 | 2,05E-21 |
| ENSG00000096696 | <i>DSP</i> | -1,07 | 1,91E-54 | -0,67 | 2,31E-21 |
| ENSG00000198355 | <i>PIM3</i> | -1,41 | 5,25E-27 | -1,26 | 2,73E-21 |
| ENSG00000205403 | <i>CFI</i> | -0,45 | 1,88E-07 | -0,80 | 2,73E-21 |
| ENSG00000113719 | <i>ERGIC1</i> | -0,57 | 1,66E-14 | -0,71 | 3,09E-21 |
| ENSG00000164733 | <i>CTSB</i> | -0,26 | 2,41E-05 | -0,57 | 3,26E-21 |
| ENSG00000112306 | <i>RPS12</i> | -0,85 | 2,44E-42 | -0,60 | 3,86E-21 |
| ENSG00000106546 | <i>AHR</i> | -1,04 | 6,73E-34 | -0,82 | 4,45E-21 |
| ENSG00000106034 | <i>C7ORF58</i> | -1,08 | 2,05E-27 | -0,95 | 4,62E-21 |
| ENSG00000079385 | <i>CEACAM1</i> | -1,34 | 3,18E-58 | -0,79 | 5,13E-21 |
| ENSG00000164587 | <i>RPS14</i> | -0,57 | 6,08E-20 | -0,59 | 7,99E-21 |
| ENSG00000106392 | <i>C1GALT1</i> | -1,04 | 9,31E-32 | -0,83 | 1,13E-20 |
| ENSG00000088930 | <i>XRN2</i> | -0,27 | 1,42E-04 | -0,63 | 1,42E-20 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000182871 | <i>COL18A1</i> | -0,77 | 9,83E-18 | -0,84 | 1,44E-20 |
| ENSG00000196576 | <i>PLXNB2</i> | -0,31 | 1,41E-04 | -0,72 | 1,90E-20 |
| ENSG00000065308 | <i>TRAM2</i> | -0,42 | 3,17E-11 | -0,58 | 1,95E-20 |
| ENSG00000078269 | <i>SYNJ2</i> | -1,19 | 6,03E-61 | -0,68 | 2,05E-20 |
| ENSG00000138434 | <i>SSFA2</i> | -0,35 | 1,21E-05 | -0,72 | 2,33E-20 |
| ENSG00000128272 | <i>ATF4</i> | -0,44 | 2,25E-13 | -0,56 | 2,43E-20 |
| ENSG00000124614 | <i>RPS10</i> | -0,73 | 1,11E-33 | -0,56 | 2,71E-20 |
| ENSG00000149273 | <i>RPS3</i> | -0,52 | 4,27E-20 | -0,53 | 3,11E-20 |
| ENSG00000127863 | <i>TNFRSF19</i> | -1,20 | 2,20E-43 | -0,80 | 4,15E-20 |
| ENSG00000162244 | <i>RPL29</i> | -0,74 | 5,98E-39 | -0,52 | 8,90E-20 |
| ENSG00000053254 | <i>FOXN3</i> | -0,71 | 6,71E-24 | -0,65 | 9,43E-20 |
| ENSG00000133657 | <i>ATP13A3</i> | -0,81 | 3,77E-26 | -0,70 | 1,01E-19 |
| ENSG00000115840 | <i>SLC25A12</i> | -0,79 | 2,59E-07 | -1,40 | 1,16E-19 |
| ENSG00000198034 | <i>RPS4X</i> | -0,53 | 5,98E-15 | -0,61 | 1,21E-19 |
| ENSG00000070614 | <i>NDST1</i> | -0,33 | 7,34E-05 | -0,73 | 1,22E-19 |
| ENSG00000188760 | <i>TMEM198</i> | -0,58 | 1,29E-05 | -1,21 | 1,52E-19 |
| ENSG00000173599 | <i>PC</i> | -0,62 | 6,52E-16 | -0,70 | 1,54E-19 |
| ENSG00000136237 | <i>RAPGEF5</i> | -0,84 | 1,11E-18 | -0,87 | 2,19E-19 |
| ENSG00000184384 | <i>MAML2</i> | -1,12 | 2,97E-24 | -1,00 | 3,09E-19 |
| ENSG00000055163 | <i>CYFIP2</i> | -0,61 | 5,68E-12 | -0,80 | 5,16E-19 |
| ENSG00000179403 | <i>VWA1</i> | -1,28 | 1,14E-30 | -1,00 | 6,67E-19 |
| ENSG00000183876 | <i>ARSI</i> | -2,03 | 9,09E-14 | -2,45 | 9,98E-19 |
| ENSG00000175745 | <i>NR2F1</i> | -0,79 | 8,61E-11 | -1,09 | 1,05E-18 |
| ENSG00000120254 | <i>MTHFD1L</i> | -0,96 | 1,86E-26 | -0,80 | 1,21E-18 |
| ENSG00000100364 | <i>C22ORF9</i> | -0,49 | 6,84E-07 | -0,85 | 1,26E-18 |
| ENSG00000104660 | <i>LEPROTL1</i> | -0,58 | 2,26E-07 | -0,99 | 1,27E-18 |
| ENSG00000101444 | <i>AHCY</i> | -1,02 | 2,56E-50 | -0,62 | 1,48E-18 |
| ENSG00000131236 | <i>CAP1</i> | -0,21 | 3,52E-03 | -0,58 | 1,75E-18 |
| ENSG00000147677 | <i>EIF3H</i> | -0,25 | 2,53E-03 | -0,68 | 1,75E-18 |
| ENSG00000038427 | <i>VCAN</i> | -1,62 | 1,03E-17 | -1,68 | 2,44E-18 |
| ENSG00000118503 | <i>TNFAIP3</i> | -0,38 | 7,30E-04 | -0,93 | 2,79E-18 |
| ENSG00000138074 | <i>SLC5A6</i> | -0,82 | 3,89E-24 | -0,71 | 3,41E-18 |

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| ENSG00000139793 | <i>MBNL2</i> | -0,60 | 1,61E-10 | -0,81 | 5,31E-18 |
| ENSG00000140450 | <i>ARRDC4</i> | -0,88 | 5,15E-09 | -1,33 | 5,98E-18 |
| ENSG00000092758 | <i>COL9A3</i> | -1,39 | 9,09E-30 | -1,07 | 7,97E-18 |
| ENSG00000215021 | <i>PHB2</i> | -0,44 | 3,33E-10 | -0,61 | 9,11E-18 |
| ENSG00000122406 | <i>RPL5</i> | -0,71 | 2,24E-32 | -0,52 | 1,92E-17 |
| ENSG00000147324 | <i>MFHAS1</i> | -0,40 | 2,48E-04 | -0,89 | 2,00E-17 |
| ENSG00000163235 | <i>TGFA</i> | -0,72 | 7,65E-06 | -1,39 | 2,12E-17 |
| ENSG00000161016 | <i>RPL8</i> | -0,73 | 2,59E-27 | -0,58 | 2,52E-17 |
| ENSG00000174748 | <i>RPL15</i> | -0,56 | 2,39E-16 | -0,58 | 3,02E-17 |
| ENSG00000172164 | <i>SNTB1</i> | -0,25 | 5,32E-04 | -0,58 | 4,08E-17 |
| ENSG00000074964 | <i>ARHGEF10L</i> | -0,36 | 2,42E-05 | -0,69 | 4,10E-17 |
| ENSG00000141568 | <i>FOKK2</i> | -0,38 | 3,70E-06 | -0,67 | 4,39E-17 |
| ENSG00000142676 | <i>RPL11</i> | -0,53 | 3,69E-17 | -0,53 | 4,43E-17 |
| ENSG00000187244 | <i>BCAM</i> | -0,30 | 2,78E-03 | -0,79 | 7,61E-17 |
| ENSG00000133275 | <i>CSNK1G2</i> | -0,63 | 1,24E-08 | -0,92 | 8,73E-17 |
| ENSG00000164251 | <i>F2RL1</i> | -2,21 | 6,51E-87 | -0,88 | 9,35E-17 |
| ENSG00000197081 | <i>IGF2R</i> | -0,65 | 2,27E-28 | -0,50 | 1,32E-16 |
| ENSG00000054179 | <i>ENTPD2</i> | -0,93 | 2,27E-09 | -1,31 | 1,56E-16 |
| ENSG00000034510 | <i>TMSB10</i> | -1,09 | 1,10E-41 | -0,68 | 1,59E-16 |
| ENSG00000171858 | <i>RPS21</i> | -0,67 | 1,04E-22 | -0,57 | 1,71E-16 |
| ENSG00000100316 | <i>LOC653881</i> | -0,61 | 4,52E-24 | -0,51 | 1,80E-16 |
| ENSG00000164171 | <i>ITGA2</i> | -1,94 | 2,57E-111 | -0,71 | 1,89E-16 |
| ENSG00000165238 | <i>WNK2</i> | -0,75 | 8,59E-12 | -0,91 | 1,89E-16 |
| ENSG00000125398 | <i>SOX9</i> | -0,72 | 1,28E-16 | -0,72 | 2,13E-16 |
| ENSG00000130821 | <i>SLC6A8</i> | -1,37 | 3,05E-51 | -0,76 | 2,90E-16 |
| ENSG00000166949 | <i>SMAD3</i> | -0,49 | 1,93E-08 | -0,71 | 3,09E-16 |
| ENSG00000174444 | <i>RPL4</i> | -0,85 | 9,13E-46 | -0,50 | 4,93E-16 |
| ENSG00000160255 | <i>ITGB2</i> | -0,69 | 3,08E-06 | -1,20 | 5,27E-16 |
| ENSG00000137193 | <i>PIM1</i> | -1,57 | 3,02E-61 | -0,77 | 5,87E-16 |
| ENSG00000198888 | <i>ND1</i> | -0,48 | 9,39E-12 | -0,57 | 6,97E-16 |
| ENSG00000114650 | <i>SCAP</i> | -0,27 | 3,56E-03 | -0,70 | 7,81E-16 |
| ENSG00000260604 | <i>RP1-140K8.5</i> | -1,73 | 7,04E-32 | -1,18 | 8,87E-16 |

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| ENSG00000164946 | <i>FREM1</i> | -1,24 | 2,49E-34 | -0,83 | 9,41E-16 |
| ENSG00000182272 | <i>B4GALNT4</i> | -2,08 | 3,53E-46 | -1,13 | 1,09E-15 |
| ENSG00000167635 | <i>ZNF146</i> | -0,73 | 1,37E-15 | -0,74 | 1,26E-15 |
| ENSG00000167703 | <i>SLC43A2</i> | -1,10 | 9,83E-22 | -0,93 | 1,28E-15 |
| ENSG00000204628 | <i>GNB2L1</i> | -0,38 | 2,22E-07 | -0,57 | 1,57E-15 |
| ENSG00000171490 | <i>RSL1D1</i> | -0,22 | 6,51E-04 | -0,50 | 1,74E-15 |
| ENSG00000122490 | <i>PQLC1</i> | -0,35 | 9,13E-04 | -0,80 | 1,91E-15 |
| ENSG00000110700 | <i>RPS13</i> | -0,60 | 1,06E-22 | -0,50 | 1,98E-15 |
| ENSG00000210082 | <i>MT-RNR2</i> | -1,01 | 7,43E-84 | -0,43 | 2,16E-15 |
| ENSG00000183741 | <i>CBX6</i> | -0,59 | 4,82E-04 | -1,32 | 2,92E-15 |
| ENSG00000144713 | <i>RPL32</i> | -0,73 | 3,05E-28 | -0,53 | 3,28E-15 |
| ENSG00000157557 | <i>ETS2</i> | -1,36 | 1,03E-51 | -0,71 | 3,43E-15 |
| ENSG00000078898 | <i>BPIL1</i> | -1,33 | 2,99E-70 | -0,61 | 3,72E-15 |
| ENSG00000058056 | <i>USP13</i> | -1,13 | 1,58E-32 | -0,76 | 4,27E-15 |
| ENSG00000148303 | <i>RPL7A</i> | -0,44 | 5,67E-15 | -0,44 | 6,23E-15 |
| ENSG00000177508 | <i>IRX3</i> | -1,95 | 2,36E-38 | -1,14 | 7,30E-15 |
| ENSG00000105379 | <i>ETFB</i> | -1,01 | 7,42E-24 | -0,79 | 1,30E-14 |
| ENSG00000141503 | <i>MINK1</i> | -0,39 | 5,98E-05 | -0,73 | 1,55E-14 |
| ENSG00000077782 | <i>FGFR1</i> | -0,68 | 3,97E-10 | -0,83 | 1,63E-14 |
| ENSG00000010319 | <i>SEMA3G</i> | -1,07 | 2,08E-20 | -0,90 | 1,67E-14 |
| ENSG00000158985 | <i>CDC42SE2</i> | -0,48 | 1,69E-06 | -0,77 | 1,68E-14 |
| ENSG00000197594 | <i>ENPP1</i> | -1,53 | 9,49E-98 | -0,57 | 1,98E-14 |
| ENSG00000109819 | <i>PPARGC1A</i> | -0,82 | 3,85E-16 | -0,78 | 2,09E-14 |
| ENSG00000070669 | <i>ASNS</i> | -1,73 | 1,15E-67 | -0,77 | 2,42E-14 |
| ENSG00000133195 | <i>SLC39A11</i> | -0,76 | 9,20E-07 | -1,18 | 2,65E-14 |
| ENSG00000071082 | <i>RPL31</i> | -0,71 | 3,70E-27 | -0,51 | 3,34E-14 |
| ENSG00000135677 | <i>GNS</i> | -0,50 | 1,89E-08 | -0,66 | 4,83E-14 |
| ENSG00000187109 | <i>NAP1L1</i> | -1,17 | 6,70E-65 | -0,53 | 4,83E-14 |
| ENSG00000140443 | <i>IGF1R</i> | -0,63 | 2,50E-18 | -0,55 | 5,15E-14 |
| ENSG00000166441 | <i>RPL27A</i> | -0,74 | 9,45E-24 | -0,57 | 5,52E-14 |
| ENSG00000162889 | <i>MAPKAPK2</i> | -0,59 | 7,39E-09 | -0,77 | 1,03E-13 |
| ENSG00000172943 | <i>PHF8</i> | -0,27 | 7,34E-03 | -0,70 | 1,16E-13 |

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000166986 | <i>MARS</i> | -0,87 | 1,11E-33 | -0,55 | 1,33E-13 |
| ENSG00000233016 | <i>SNHG7</i> | -0,54 | 3,86E-05 | -0,96 | 1,36E-13 |
| ENSG00000161091 | <i>C19ORF28</i> | -0,56 | 3,93E-05 | -1,00 | 1,36E-13 |
| ENSG00000105372 | <i>RPS19</i> | -0,48 | 1,14E-10 | -0,55 | 1,40E-13 |
| ENSG00000079432 | <i>CIC</i> | -0,81 | 8,45E-16 | -0,76 | 1,56E-13 |
| ENSG00000133112 | <i>LOC285741</i> | -0,69 | 1,73E-25 | -0,50 | 1,63E-13 |
| ENSG00000079308 | <i>TNS1</i> | -2,25 | 7,96E-26 | -1,61 | 1,81E-13 |
| ENSG00000108107 | <i>RPL28</i> | -0,39 | 4,53E-06 | -0,61 | 1,98E-13 |
| ENSG00000144711 | <i>IQSEC1</i> | -0,29 | 9,10E-04 | -0,61 | 2,26E-13 |
| ENSG00000108298 | <i>RPL19</i> | -0,47 | 1,76E-14 | -0,46 | 2,29E-13 |
| ENSG00000162407 | <i>PPAP2B</i> | -0,48 | 2,76E-09 | -0,59 | 2,76E-13 |
| ENSG00000162009 | <i>SSTR5</i> | -1,21 | 8,50E-15 | -1,15 | 3,40E-13 |
| ENSG00000110721 | <i>CHKA</i> | -0,24 | 7,37E-03 | -0,61 | 3,52E-13 |
| ENSG00000140988 | <i>RPS2</i> | -0,47 | 5,62E-13 | -0,47 | 3,58E-13 |
| ENSG00000035928 | <i>RFC1</i> | -0,38 | 3,83E-07 | -0,53 | 3,93E-13 |
| ENSG00000142937 | <i>RPS8</i> | -0,63 | 1,68E-17 | -0,55 | 4,66E-13 |
| ENSG00000168994 | <i>C6ORF145</i> | -0,85 | 2,14E-15 | -0,78 | 7,39E-13 |
| ENSG00000154127 | <i>UBASH3B</i> | -1,06 | 7,85E-26 | -0,73 | 9,99E-13 |
| ENSG00000116584 | <i>ARHGEF2</i> | -0,83 | 1,12E-08 | -1,05 | 1,12E-12 |
| ENSG00000226015 | <i>CCT8P1</i> | -1,39 | 5,43E-20 | -1,09 | 1,38E-12 |
| ENSG00000157827 | <i>FMNL2</i> | -1,36 | 5,00E-77 | -0,53 | 1,74E-12 |
| ENSG00000152818 | <i>UTRN</i> | -1,33 | 1,68E-77 | -0,52 | 1,87E-12 |
| ENSG00000142599 | <i>RERE</i> | -0,67 | 2,37E-16 | -0,58 | 2,11E-12 |
| ENSG00000105429 | <i>MEGF8</i> | -0,78 | 3,35E-16 | -0,69 | 2,16E-12 |
| ENSG00000204444 | <i>APOM</i> | -0,86 | 3,97E-33 | -0,52 | 2,24E-12 |
| ENSG00000138095 | <i>LRPPRC</i> | -0,64 | 4,53E-26 | -0,44 | 2,24E-12 |
| ENSG00000103429 | <i>BFAR</i> | -0,26 | 9,83E-04 | -0,52 | 2,58E-12 |
| ENSG00000113328 | <i>CCNG1</i> | -0,52 | 4,80E-11 | -0,55 | 2,91E-12 |
| ENSG00000138604 | <i>GLCE</i> | -0,93 | 5,96E-11 | -1,01 | 3,52E-12 |
| ENSG00000205730 | <i>ITPRIPL2</i> | -0,78 | 4,07E-13 | -0,76 | 3,79E-12 |
| ENSG00000100345 | <i>MYH9</i> | -0,49 | 3,55E-12 | -0,49 | 3,89E-12 |
| ENSG00000146729 | <i>GBAS</i> | -0,53 | 1,84E-05 | -0,84 | 4,59E-12 |

Hepatology

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|-----------------|------------------|-------|-----------|-------|----------|
| ENSG00000089157 | <i>RPLP0</i> | -0,52 | 3,69E-17 | -0,43 | 4,82E-12 |
| ENSG00000101577 | <i>LPIN2</i> | -0,76 | 6,49E-24 | -0,53 | 5,07E-12 |
| ENSG00000099204 | <i>ABLIM1</i> | -0,43 | 9,80E-11 | -0,47 | 5,45E-12 |
| ENSG00000054965 | <i>FAM168A</i> | -0,45 | 1,62E-06 | -0,64 | 6,03E-12 |
| ENSG00000197958 | <i>RPL12</i> | -0,51 | 1,08E-14 | -0,46 | 6,10E-12 |
| ENSG00000169908 | <i>TM4SF1</i> | -1,73 | 3,75E-101 | -0,58 | 7,12E-12 |
| ENSG00000078401 | <i>EDN1</i> | -1,89 | 7,24E-20 | -1,42 | 7,13E-12 |
| ENSG00000105373 | <i>GLTSCR2</i> | -0,84 | 2,99E-13 | -0,80 | 7,90E-12 |
| ENSG00000185615 | <i>PDIA2</i> | -1,76 | 7,13E-19 | -1,36 | 9,02E-12 |
| ENSG00000087266 | <i>SH3BP2</i> | -0,77 | 1,57E-09 | -0,88 | 1,09E-11 |
| ENSG00000169855 | <i>LOC642132</i> | -1,06 | 5,51E-49 | -0,51 | 1,18E-11 |
| ENSG00000197756 | <i>RPL37A</i> | -0,60 | 1,77E-22 | -0,43 | 1,24E-11 |
| ENSG00000198755 | <i>RPL10A</i> | -0,67 | 9,80E-28 | -0,43 | 1,50E-11 |
| ENSG00000137818 | <i>RPLP1</i> | -0,64 | 5,76E-17 | -0,53 | 1,50E-11 |
| ENSG00000100528 | <i>CNIH</i> | -0,34 | 5,02E-04 | -0,63 | 1,53E-11 |
| ENSG00000103187 | <i>COTL1</i> | -1,89 | 1,18E-48 | -0,84 | 1,81E-11 |
| ENSG00000155229 | <i>MMS19</i> | -0,38 | 4,57E-05 | -0,61 | 1,94E-11 |
| ENSG00000137309 | <i>HMGA1</i> | -1,06 | 3,54E-38 | -0,57 | 2,50E-11 |
| ENSG00000102081 | <i>FMR1</i> | -0,39 | 1,29E-05 | -0,58 | 2,67E-11 |
| ENSG00000168758 | <i>SEMA4C</i> | -1,24 | 3,10E-31 | -0,72 | 2,76E-11 |
| ENSG00000168264 | <i>IRF2BP2</i> | -0,79 | 2,24E-21 | -0,57 | 2,76E-11 |
| ENSG00000156508 | <i>EEF1A1</i> | -0,64 | 2,75E-17 | -0,52 | 2,76E-11 |
| ENSG00000197321 | <i>SVIL</i> | -0,63 | 1,23E-07 | -0,80 | 2,78E-11 |
| ENSG00000128829 | <i>EIF2AK4</i> | -0,81 | 1,17E-27 | -0,51 | 2,84E-11 |
| ENSG00000198858 | <i>C19ORF22</i> | -0,53 | 5,36E-07 | -0,70 | 3,50E-11 |
| ENSG00000137166 | <i>FOXP4</i> | -0,41 | 3,68E-05 | -0,64 | 3,71E-11 |
| ENSG00000143537 | <i>ADAM15</i> | -0,57 | 2,93E-05 | -0,89 | 3,74E-11 |
| ENSG00000168003 | <i>SLC3A2</i> | -0,23 | 2,74E-03 | -0,47 | 4,12E-11 |
| ENSG00000163513 | <i>TGFBR2</i> | -0,56 | 4,41E-17 | -0,45 | 4,20E-11 |
| ENSG00000125691 | <i>RPL23</i> | -0,83 | 5,59E-37 | -0,45 | 5,27E-11 |
| ENSG00000168488 | <i>ATXN2L</i> | -0,34 | 5,66E-06 | -0,48 | 6,36E-11 |
| ENSG00000198886 | <i>ND4</i> | -0,43 | 3,91E-16 | -0,35 | 6,82E-11 |

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|-----------------|---------------------|-------|----------|-------|----------|
| ENSG00000146433 | <i>TMEM181</i> | -0,91 | 1,10E-34 | -0,50 | 7,15E-11 |
| ENSG00000168056 | <i>LTBP3</i> | -0,53 | 1,35E-06 | -0,71 | 7,15E-11 |
| ENSG00000128342 | <i>LIF</i> | -0,71 | 2,08E-04 | -1,24 | 7,23E-11 |
| ENSG00000144645 | <i>OSBPL10</i> | -2,13 | 2,00E-46 | -0,94 | 7,62E-11 |
| ENSG00000260032 | <i>LINC00657</i> | -0,33 | 1,10E-06 | -0,43 | 8,35E-11 |
| ENSG00000101384 | <i>JAG1</i> | -0,55 | 1,68E-13 | -0,49 | 9,12E-11 |
| ENSG00000116962 | <i>NID1</i> | -0,83 | 1,63E-36 | -0,44 | 1,01E-10 |
| ENSG00000125149 | <i>C16ORF70</i> | -0,92 | 2,36E-18 | -0,69 | 1,01E-10 |
| ENSG00000140044 | <i>JDP2</i> | -0,81 | 2,21E-04 | -1,42 | 1,06E-10 |
| ENSG00000145425 | <i>LOC100130107</i> | -0,71 | 1,94E-18 | -0,53 | 1,08E-10 |
| ENSG00000181896 | <i>ZNF101</i> | -0,80 | 3,33E-08 | -0,94 | 1,23E-10 |
| ENSG00000103460 | <i>TOX3</i> | -1,23 | 2,59E-31 | -0,69 | 1,28E-10 |
| ENSG00000105639 | <i>JAK3</i> | -1,61 | 9,89E-21 | -1,11 | 1,51E-10 |
| ENSG00000147408 | <i>CSGALNACT1</i> | -2,05 | 2,00E-20 | -1,41 | 1,53E-10 |
| ENSG00000182606 | <i>TRAK1</i> | -0,75 | 3,34E-20 | -0,54 | 1,77E-10 |
| ENSG00000177426 | <i>TGIF1</i> | -0,91 | 1,55E-14 | -0,77 | 1,78E-10 |
| ENSG00000189221 | <i>MAOA</i> | -0,38 | 2,05E-04 | -0,64 | 1,89E-10 |
| ENSG00000198804 | <i>COX1</i> | -0,48 | 2,75E-19 | -0,35 | 1,90E-10 |
| ENSG00000185624 | <i>P4HB</i> | -0,52 | 2,77E-17 | -0,40 | 2,01E-10 |
| ENSG00000055483 | <i>USP36</i> | -0,32 | 5,01E-04 | -0,57 | 2,02E-10 |
| ENSG00000105254 | <i>TBCB</i> | -0,76 | 8,29E-11 | -0,75 | 2,25E-10 |
| ENSG00000008710 | <i>PKD1</i> | -0,82 | 2,41E-14 | -0,70 | 2,38E-10 |
| ENSG00000196914 | <i>ARHGEF12</i> | -0,33 | 9,61E-06 | -0,46 | 2,46E-10 |
| ENSG00000141905 | <i>NFIC</i> | -0,87 | 9,54E-10 | -0,92 | 2,47E-10 |
| ENSG00000142089 | <i>IFITM3</i> | -1,02 | 1,07E-18 | -0,74 | 2,54E-10 |
| ENSG00000101337 | <i>TM9SF4</i> | -0,40 | 1,73E-08 | -0,45 | 2,87E-10 |
| ENSG00000132970 | <i>WASF3</i> | -0,87 | 8,19E-12 | -0,81 | 3,00E-10 |
| ENSG00000184640 | <i>SEPT9</i> | -0,20 | 4,52E-03 | -0,42 | 3,00E-10 |
| ENSG00000120129 | <i>DUSP1</i> | -0,92 | 7,19E-10 | -0,96 | 3,29E-10 |
| ENSG00000064300 | <i>NGFR</i> | -2,79 | 1,58E-21 | -1,84 | 3,52E-10 |
| ENSG00000091136 | <i>LAMB1</i> | -1,00 | 5,32E-51 | -0,43 | 3,64E-10 |
| ENSG00000233927 | <i>RPS28</i> | -0,46 | 1,46E-06 | -0,59 | 4,28E-10 |

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|-----------------|----------------|-------|----------|-------|----------|
| ENSG0000007047 | <i>MARK4</i> | -0,76 | 5,81E-08 | -0,88 | 4,47E-10 |
| ENSG00000159335 | <i>PTMS</i> | -0,95 | 6,10E-11 | -0,92 | 4,73E-10 |
| ENSG00000065154 | <i>OAT</i> | -0,26 | 4,71E-03 | -0,53 | 5,10E-10 |
| ENSG00000127948 | <i>POR</i> | -0,51 | 6,36E-14 | -0,43 | 6,01E-10 |
| ENSG00000175727 | <i>MLXIP</i> | -0,28 | 9,27E-03 | -0,64 | 6,01E-10 |
| ENSG00000182319 | <i>SGK223</i> | -1,04 | 1,79E-21 | -0,69 | 6,75E-10 |
| ENSG00000116017 | <i>ARID3A</i> | -0,31 | 2,48E-04 | -0,51 | 7,01E-10 |
| ENSG00000089009 | <i>RPL6</i> | -1,16 | 1,34E-59 | -0,46 | 7,02E-10 |
| ENSG00000198727 | <i>CYTB</i> | -0,46 | 6,53E-12 | -0,42 | 7,10E-10 |
| ENSG00000142192 | <i>APP</i> | -1,03 | 2,56E-46 | -0,46 | 7,17E-10 |
| ENSG00000090339 | <i>ICAM1</i> | -1,33 | 7,20E-41 | -0,62 | 8,93E-10 |
| ENSG00000105325 | <i>FZR1</i> | -0,33 | 3,44E-03 | -0,66 | 8,96E-10 |
| ENSG00000168615 | <i>ADAM9</i> | -0,95 | 3,53E-42 | -0,44 | 9,03E-10 |
| ENSG00000158296 | <i>SLC13A3</i> | -1,58 | 5,67E-38 | -0,74 | 9,35E-10 |
| ENSG00000198959 | <i>TGM2</i> | -0,43 | 7,24E-04 | -0,76 | 9,35E-10 |
| ENSG00000064932 | <i>SBNO2</i> | -0,70 | 2,09E-08 | -0,77 | 1,07E-09 |
| ENSG00000047457 | <i>CP</i> | -2,40 | 1,92E-44 | -1,10 | 1,09E-09 |
| ENSG00000175826 | <i>DULLARD</i> | -0,78 | 1,06E-08 | -0,85 | 1,09E-09 |
| ENSG00000105640 | <i>RPL18A</i> | -0,75 | 8,39E-18 | -0,54 | 1,13E-09 |
| ENSG00000167491 | <i>GATAD2A</i> | -0,48 | 3,13E-06 | -0,62 | 1,17E-09 |
| ENSG00000067082 | <i>KLF6</i> | -0,70 | 3,73E-17 | -0,52 | 1,19E-09 |
| ENSG00000143947 | <i>RPS27A</i> | -0,63 | 3,98E-23 | -0,40 | 1,24E-09 |
| ENSG00000132670 | <i>PTPRA</i> | -0,36 | 2,31E-06 | -0,46 | 1,33E-09 |
| ENSG00000177807 | <i>KCNJ10</i> | -2,23 | 2,27E-13 | -1,88 | 1,35E-09 |
| ENSG00000084652 | <i>TXLNA</i> | -0,41 | 5,35E-07 | -0,49 | 1,38E-09 |
| ENSG00000130066 | <i>SAT1</i> | -1,35 | 1,28E-63 | -0,51 | 1,54E-09 |
| ENSG00000100065 | <i>CARD10</i> | -0,76 | 5,01E-19 | -0,53 | 1,59E-09 |
| ENSG00000112033 | <i>PPARD</i> | -0,73 | 9,41E-10 | -0,73 | 1,97E-09 |
| ENSG00000100422 | <i>CERK</i> | -0,46 | 1,91E-06 | -0,58 | 1,98E-09 |
| ENSG00000233864 | <i>TTY15</i> | -0,45 | 1,88E-03 | -0,84 | 2,41E-09 |
| ENSG00000167526 | <i>RPL13</i> | -0,62 | 1,51E-11 | -0,56 | 2,42E-09 |
| ENSG00000056586 | <i>RC3H2</i> | -0,42 | 6,64E-06 | -0,56 | 2,62E-09 |

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| ENSG00000159128 | <i>IFNGR2</i> | -0,78 | 1,19E-10 | -0,73 | 3,14E-09 |
| ENSG00000130255 | <i>RPL36</i> | -0,48 | 5,61E-07 | -0,57 | 3,16E-09 |
| ENSG00000065060 | <i>UHRF1BP1</i> | -0,31 | 9,76E-05 | -0,46 | 3,37E-09 |
| ENSG00000134686 | <i>PHC2</i> | -0,78 | 1,62E-21 | -0,50 | 3,52E-09 |
| ENSG00000198300 | <i>PEG3</i> | -0,59 | 1,31E-16 | -0,43 | 3,73E-09 |
| ENSG00000221978 | <i>CCNL2</i> | -0,40 | 7,68E-06 | -0,52 | 3,85E-09 |
| ENSG00000103811 | <i>CTSH</i> | -0,31 | 4,76E-05 | -0,44 | 3,90E-09 |
| ENSG00000072864 | <i>NDE1</i> | -1,29 | 5,96E-41 | -0,58 | 4,01E-09 |
| ENSG00000005022 | <i>SLC25A5</i> | -0,39 | 2,53E-07 | -0,45 | 4,14E-09 |
| ENSG00000123989 | <i>CHPF</i> | -1,32 | 2,78E-53 | -0,52 | 4,79E-09 |
| ENSG00000185359 | <i>HGS</i> | -0,57 | 1,57E-09 | -0,56 | 4,79E-09 |
| ENSG00000171867 | <i>PRNP</i> | -0,30 | 4,15E-05 | -0,42 | 4,93E-09 |
| ENSG00000163435 | <i>ELF3</i> | -1,34 | 1,05E-10 | -1,23 | 5,14E-09 |
| ENSG00000172057 | <i>ORMDL3</i> | -1,45 | 2,35E-64 | -0,52 | 5,29E-09 |
| ENSG00000104529 | <i>EEF1D</i> | -0,43 | 2,04E-08 | -0,45 | 5,77E-09 |
| ENSG00000031823 | <i>RANBP3</i> | -0,69 | 6,32E-13 | -0,57 | 5,85E-09 |
| ENSG00000140836 | <i>ZFH3</i> | -0,52 | 1,72E-08 | -0,54 | 6,58E-09 |
| ENSG00000124226 | <i>RNF114</i> | -0,25 | 4,15E-03 | -0,47 | 6,67E-09 |
| ENSG00000171877 | <i>FRMD5</i> | -1,26 | 8,84E-07 | -1,51 | 6,96E-09 |
| ENSG00000008282 | <i>SYPL1</i> | -0,49 | 3,47E-07 | -0,57 | 7,20E-09 |
| ENSG00000119669 | <i>C14ORF4</i> | -0,77 | 1,00E-06 | -0,91 | 7,30E-09 |
| ENSG00000213949 | <i>ITGA1</i> | -1,04 | 2,04E-27 | -0,57 | 7,61E-09 |
| ENSG00000229117 | <i>RPL41</i> | -0,69 | 3,83E-25 | -0,40 | 8,08E-09 |
| ENSG00000170537 | <i>TMC7</i> | -1,11 | 2,19E-08 | -1,16 | 8,51E-09 |
| ENSG00000123243 | <i>ITIH5</i> | -0,56 | 1,55E-04 | -0,84 | 8,68E-09 |
| ENSG00000163584 | <i>RPL22L1</i> | -1,09 | 6,32E-14 | -0,85 | 9,01E-09 |
| ENSG00000123561 | <i>SERPINA7</i> | -1,17 | 2,53E-45 | -0,50 | 9,02E-09 |
| ENSG00000108840 | <i>HDAC5</i> | -0,48 | 1,51E-06 | -0,57 | 9,68E-09 |
| ENSG00000176624 | <i>MEX3C</i> | -0,33 | 3,52E-03 | -0,62 | 1,12E-08 |
| ENSG00000105767 | <i>CADM4</i> | -0,67 | 4,49E-05 | -0,93 | 1,14E-08 |
| ENSG00000183337 | <i>BCOR</i> | -0,40 | 2,52E-05 | -0,54 | 1,15E-08 |
| ENSG00000113387 | <i>SUB1</i> | -0,26 | 2,07E-03 | -0,46 | 1,22E-08 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG0000088826 | <i>SMOX</i> | -0,42 | 1,62E-03 | -0,75 | 1,24E-08 |
| ENSG00000103005 | <i>C16ORF57</i> | -0,27 | 6,12E-03 | -0,53 | 1,24E-08 |
| ENSG00000129473 | <i>BCL2L2</i> | -0,52 | 4,91E-09 | -0,51 | 1,53E-08 |
| ENSG00000145741 | <i>BTF3</i> | -0,26 | 1,93E-05 | -0,35 | 1,54E-08 |
| ENSG00000162337 | <i>LRP5</i> | -0,83 | 3,22E-39 | -0,38 | 1,57E-08 |
| ENSG00000133812 | <i>SBF2</i> | -0,44 | 7,08E-05 | -0,62 | 1,73E-08 |
| ENSG00000167202 | <i>TBC1D2B</i> | -0,46 | 1,36E-04 | -0,67 | 2,20E-08 |
| ENSG00000164056 | <i>SPRY1</i> | -1,12 | 8,49E-23 | -0,65 | 2,20E-08 |
| ENSG00000130723 | <i>BAT2L1</i> | -0,25 | 9,31E-04 | -0,41 | 2,22E-08 |
| ENSG00000156413 | <i>FUT6</i> | -1,15 | 1,26E-19 | -0,73 | 2,22E-08 |
| ENSG00000188559 | <i>RALGAPA2</i> | -1,02 | 1,21E-32 | -0,50 | 2,22E-08 |
| ENSG00000143384 | <i>MCL1</i> | -1,25 | 3,09E-67 | -0,42 | 2,23E-08 |
| ENSG00000018408 | <i>WWTR1</i> | -0,46 | 1,51E-08 | -0,46 | 2,23E-08 |
| ENSG00000183255 | <i>PTTG1IP</i> | -0,72 | 5,68E-25 | -0,41 | 2,31E-08 |
| ENSG00000101040 | <i>ZMYND8</i> | -0,65 | 1,76E-20 | -0,41 | 2,42E-08 |
| ENSG00000105355 | <i>PLIN3</i> | -0,73 | 2,42E-16 | -0,51 | 2,63E-08 |
| ENSG00000071564 | <i>TCF3</i> | -0,40 | 6,93E-05 | -0,56 | 2,78E-08 |
| ENSG00000181789 | <i>COPG</i> | -0,21 | 8,90E-03 | -0,42 | 2,78E-08 |
| ENSG00000136295 | <i>TTYH3</i> | -0,85 | 1,94E-31 | -0,42 | 2,82E-08 |
| ENSG00000083857 | <i>FAT1</i> | -0,49 | 1,45E-10 | -0,44 | 2,91E-08 |
| ENSG00000100889 | <i>PCK2</i> | -0,58 | 3,11E-16 | -0,40 | 3,09E-08 |
| ENSG00000188707 | <i>C7ORF29</i> | -0,39 | 7,74E-04 | -0,62 | 3,09E-08 |
| ENSG00000138326 | <i>RPS24</i> | -0,67 | 4,74E-19 | -0,43 | 3,10E-08 |
| ENSG00000008988 | <i>RPS20</i> | -0,51 | 1,70E-15 | -0,37 | 3,25E-08 |
| ENSG00000170035 | <i>UBE2E3</i> | -0,28 | 5,35E-03 | -0,54 | 3,40E-08 |
| ENSG00000145907 | <i>G3BP1</i> | -0,30 | 1,91E-05 | -0,39 | 3,66E-08 |
| ENSG00000100353 | <i>EIF3D</i> | -0,54 | 1,37E-11 | -0,45 | 4,39E-08 |
| ENSG00000107581 | <i>EIF3A</i> | -0,33 | 1,11E-07 | -0,34 | 4,91E-08 |
| ENSG00000171863 | <i>RPS7</i> | -0,70 | 3,88E-20 | -0,43 | 5,14E-08 |
| ENSG00000141522 | <i>ARHGDI1</i> | -0,58 | 1,37E-06 | -0,66 | 5,61E-08 |
| ENSG00000178297 | <i>TMPRSS9</i> | -0,79 | 1,48E-04 | -1,12 | 6,45E-08 |
| ENSG00000135486 | <i>HNRNPA1</i> | -0,24 | 1,03E-03 | -0,37 | 6,67E-08 |

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|-----------------|---------------------|-------|----------|-------|----------|
| ENSG0000090975 | <i>PITPNM2</i> | -0,44 | 2,88E-03 | -0,77 | 6,83E-08 |
| ENSG00000137154 | <i>RPS6</i> | -0,90 | 5,92E-37 | -0,40 | 6,87E-08 |
| ENSG00000107331 | <i>ABCA2</i> | -0,61 | 2,24E-07 | -0,65 | 6,98E-08 |
| ENSG00000122376 | <i>FAM35B</i> | -0,39 | 1,33E-04 | -0,54 | 7,09E-08 |
| ENSG00000142627 | <i>EPHA2</i> | -1,09 | 1,42E-34 | -0,49 | 7,76E-08 |
| ENSG00000112379 | <i>KIAA1244</i> | -1,81 | 3,03E-24 | -0,95 | 8,05E-08 |
| ENSG00000139842 | <i>CUL4A</i> | -0,44 | 3,39E-08 | -0,43 | 8,79E-08 |
| ENSG00000162909 | <i>CAPN2</i> | -0,63 | 9,18E-06 | -0,76 | 9,04E-08 |
| ENSG00000162267 | <i>ITIH3</i> | -0,96 | 7,65E-11 | -0,81 | 9,31E-08 |
| ENSG00000116539 | <i>ASH1L</i> | -0,55 | 3,99E-07 | -0,59 | 9,45E-08 |
| ENSG00000174032 | <i>SLC25A30</i> | -0,51 | 1,27E-06 | -0,57 | 9,64E-08 |
| ENSG00000196531 | <i>NACA</i> | -0,37 | 9,69E-10 | -0,33 | 9,67E-08 |
| ENSG0000090621 | <i>PABPC4</i> | -0,62 | 4,31E-13 | -0,47 | 9,83E-08 |
| ENSG00000142453 | <i>CARM1</i> | -0,95 | 6,35E-20 | -0,57 | 1,00E-07 |
| ENSG00000166016 | <i>ABTB2</i> | -0,65 | 7,35E-09 | -0,61 | 1,01E-07 |
| ENSG00000164574 | <i>GALNT10</i> | -0,43 | 1,82E-04 | -0,61 | 1,05E-07 |
| ENSG00000182899 | <i>RPL35A</i> | -0,62 | 1,78E-18 | -0,39 | 1,07E-07 |
| ENSG00000121552 | <i>CSTA</i> | -1,87 | 8,55E-10 | -1,65 | 1,10E-07 |
| ENSG00000077232 | <i>DNAJC10</i> | -0,34 | 1,07E-06 | -0,37 | 1,21E-07 |
| ENSG00000164684 | <i>ZNF704</i> | -0,43 | 5,95E-04 | -0,64 | 1,27E-07 |
| ENSG00000172809 | <i>RPL38</i> | -0,67 | 3,17E-14 | -0,48 | 1,30E-07 |
| ENSG00000101255 | <i>TRIB3</i> | -0,38 | 2,96E-07 | -0,40 | 1,35E-07 |
| ENSG00000197457 | <i>STMN3</i> | -1,08 | 1,43E-25 | -0,56 | 1,39E-07 |
| ENSG00000160213 | <i>CSTB</i> | -0,78 | 8,95E-11 | -0,65 | 1,46E-07 |
| ENSG00000131469 | <i>RPL27</i> | -0,64 | 2,41E-18 | -0,40 | 1,56E-07 |
| ENSG00000060237 | <i>LOC100132369</i> | -0,38 | 1,39E-07 | -0,39 | 1,57E-07 |
| ENSG00000144136 | <i>SLC20A1</i> | -0,59 | 1,01E-15 | -0,40 | 1,69E-07 |
| ENSG00000169813 | <i>HNRNPF</i> | -0,21 | 2,99E-03 | -0,36 | 1,75E-07 |
| ENSG00000171206 | <i>TRIM8</i> | -0,50 | 1,34E-04 | -0,68 | 1,80E-07 |
| ENSG00000103335 | <i>FAM38A</i> | -0,46 | 8,66E-07 | -0,49 | 1,82E-07 |
| ENSG00000118579 | <i>MED28</i> | -0,44 | 1,83E-06 | -0,48 | 1,83E-07 |
| ENSG00000160712 | <i>IL6R</i> | -0,82 | 8,45E-22 | -0,46 | 1,86E-07 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000135966 | <i>TGFBRAP1</i> | -0,57 | 2,11E-09 | -0,51 | 1,94E-07 |
| ENSG00000152894 | <i>PTPRK</i> | -0,25 | 1,61E-03 | -0,41 | 2,03E-07 |
| ENSG00000116260 | <i>QSOX1</i> | -2,27 | 9,10E-48 | -0,79 | 2,10E-07 |
| ENSG00000004399 | <i>PLXND1</i> | -0,88 | 6,32E-26 | -0,45 | 2,15E-07 |
| ENSG00000141551 | <i>CSNK1D</i> | -0,29 | 3,97E-04 | -0,42 | 2,21E-07 |
| ENSG00000176438 | <i>C14ORF49</i> | -0,70 | 2,07E-05 | -0,86 | 2,25E-07 |
| ENSG00000205595 | <i>AREG</i> | -1,84 | 7,58E-09 | -1,68 | 2,30E-07 |
| ENSG00000136938 | <i>ANP32B</i> | -0,26 | 4,23E-04 | -0,37 | 2,34E-07 |
| ENSG00000141582 | <i>CBX4</i> | -0,46 | 2,71E-03 | -0,77 | 2,37E-07 |
| ENSG00000118985 | <i>ELL2</i> | -0,86 | 7,04E-30 | -0,41 | 2,74E-07 |
| ENSG00000113407 | <i>TARS</i> | -0,71 | 7,72E-20 | -0,41 | 2,95E-07 |
| ENSG00000170017 | <i>ALCAM</i> | -0,58 | 3,85E-10 | -0,49 | 3,10E-07 |
| ENSG00000126368 | <i>NR1D1</i> | -0,63 | 1,63E-03 | -1,01 | 3,19E-07 |
| ENSG00000168028 | <i>RPSA</i> | -0,60 | 1,40E-26 | -0,30 | 3,37E-07 |
| ENSG00000188706 | <i>ZDHHC9</i> | -0,37 | 2,24E-05 | -0,45 | 3,51E-07 |
| ENSG00000177885 | <i>GRB2</i> | -0,25 | 4,15E-03 | -0,42 | 3,61E-07 |
| ENSG00000162878 | <i>PKDCC</i> | -1,27 | 3,19E-34 | -0,55 | 3,81E-07 |
| ENSG00000198734 | <i>F5</i> | -0,73 | 4,29E-21 | -0,41 | 4,18E-07 |
| ENSG00000136010 | <i>ALDH1L2</i> | -0,85 | 3,63E-11 | -0,67 | 4,36E-07 |
| ENSG00000167522 | <i>ANKRD11</i> | -0,35 | 1,48E-05 | -0,41 | 4,68E-07 |
| ENSG00000134243 | <i>SORT1</i> | -0,59 | 2,59E-17 | -0,37 | 4,78E-07 |
| ENSG00000010818 | <i>HIVEP2</i> | -1,47 | 1,11E-24 | -0,73 | 4,94E-07 |
| ENSG00000125741 | <i>OPA3</i> | -0,39 | 1,45E-03 | -0,61 | 4,98E-07 |
| ENSG00000102996 | <i>MMP15</i> | -0,58 | 9,30E-11 | -0,46 | 5,34E-07 |
| ENSG00000107404 | <i>DVL1</i> | -0,54 | 4,39E-08 | -0,51 | 5,34E-07 |
| ENSG00000160789 | <i>LMNA</i> | -0,30 | 1,62E-04 | -0,40 | 5,34E-07 |
| ENSG00000164086 | <i>DUSP7</i> | -0,48 | 6,28E-03 | -0,86 | 5,46E-07 |
| ENSG00000166197 | <i>NOLC1</i> | -0,72 | 2,58E-20 | -0,41 | 5,86E-07 |
| ENSG00000011009 | <i>LYPLA2</i> | -0,40 | 2,03E-04 | -0,53 | 5,91E-07 |
| ENSG00000182600 | <i>C2ORF82</i> | -1,15 | 1,14E-10 | -0,91 | 6,35E-07 |
| ENSG00000147459 | <i>DOCK5</i> | -0,40 | 1,50E-04 | -0,52 | 6,52E-07 |
| ENSG00000132640 | <i>BTBD3</i> | -1,01 | 1,03E-22 | -0,53 | 6,53E-07 |

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|-----------------|-----------------|-------|-----------|-------|----------|
| ENSG00000088836 | <i>SLC4A11</i> | -0,92 | 4,53E-13 | -0,65 | 7,14E-07 |
| ENSG00000002549 | <i>LAP3</i> | -1,39 | 1,02E-48 | -0,49 | 7,41E-07 |
| ENSG00000163251 | <i>FZD5</i> | -0,36 | 1,73E-06 | -0,37 | 7,49E-07 |
| ENSG00000088992 | <i>TESC</i> | -1,15 | 1,43E-15 | -0,73 | 7,66E-07 |
| ENSG00000142207 | <i>URB1</i> | -0,40 | 2,98E-05 | -0,48 | 7,87E-07 |
| ENSG00000142910 | <i>TINAGL1</i> | -0,57 | 1,49E-03 | -0,87 | 7,98E-07 |
| ENSG00000177728 | <i>KIAA0195</i> | -0,36 | 6,24E-04 | -0,50 | 8,48E-07 |
| ENSG00000143013 | <i>LMO4</i> | -1,09 | 2,64E-12 | -0,79 | 8,50E-07 |
| ENSG00000198369 | <i>SPRED2</i> | -0,49 | 4,42E-10 | -0,39 | 8,77E-07 |
| ENSG00000108219 | <i>TSPAN14</i> | -0,89 | 9,24E-31 | -0,40 | 8,92E-07 |
| ENSG00000166575 | <i>TMEM135</i> | -0,63 | 6,23E-17 | -0,39 | 9,10E-07 |
| ENSG00000115457 | <i>IGFBP2</i> | -2,06 | 4,03E-14 | -1,35 | 9,33E-07 |
| ENSG00000099942 | <i>CRKL</i> | -0,45 | 1,20E-07 | -0,42 | 9,36E-07 |
| ENSG00000131471 | <i>AOC3</i> | -0,58 | 2,83E-07 | -0,56 | 1,01E-06 |
| ENSG00000234741 | <i>GAS5</i> | -0,56 | 1,69E-07 | -0,53 | 1,01E-06 |
| ENSG00000078804 | <i>TP53INP2</i> | -0,42 | 1,77E-06 | -0,43 | 1,04E-06 |
| ENSG00000147604 | <i>RPL7</i> | -0,70 | 4,75E-18 | -0,41 | 1,06E-06 |
| ENSG00000197724 | <i>PHF2</i> | -0,51 | 5,12E-05 | -0,62 | 1,12E-06 |
| ENSG00000178035 | <i>IMPDH2</i> | -0,53 | 3,71E-14 | -0,35 | 1,13E-06 |
| ENSG00000188647 | <i>PTAR1</i> | -0,32 | 1,76E-03 | -0,49 | 1,13E-06 |
| ENSG00000129250 | <i>KIF1C</i> | -0,34 | 4,95E-05 | -0,41 | 1,19E-06 |
| ENSG00000119383 | <i>PPP2R4</i> | -0,35 | 2,88E-05 | -0,41 | 1,20E-06 |
| ENSG00000068120 | <i>COASY</i> | -0,32 | 1,37E-05 | -0,36 | 1,24E-06 |
| ENSG00000137331 | <i>IER3</i> | -2,46 | 9,01E-119 | -0,51 | 1,25E-06 |
| ENSG00000112337 | <i>SLC17A2</i> | -0,60 | 9,20E-06 | -0,66 | 1,30E-06 |
| ENSG00000157224 | <i>CLDN12</i> | -0,74 | 1,87E-15 | -0,47 | 1,41E-06 |
| ENSG00000128849 | <i>CGNL1</i> | -0,53 | 2,18E-07 | -0,50 | 1,43E-06 |
| ENSG00000055917 | <i>PUM2</i> | -0,26 | 3,55E-04 | -0,35 | 1,49E-06 |
| ENSG00000130175 | <i>PRKCSH</i> | -0,35 | 1,07E-04 | -0,44 | 1,50E-06 |
| ENSG00000075426 | <i>FOSL2</i> | -0,93 | 9,88E-18 | -0,54 | 1,57E-06 |
| ENSG00000107957 | <i>SH3PXD2A</i> | -0,52 | 8,79E-10 | -0,42 | 1,68E-06 |
| ENSG00000139146 | <i>FAM60A</i> | -1,28 | 7,50E-41 | -0,48 | 1,87E-06 |

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|-----------------|-------------------|-------|----------|-------|----------|
| ENSG00000101194 | <i>SLC17A9</i> | -0,44 | 7,30E-10 | -0,35 | 2,06E-06 |
| ENSG00000105281 | <i>SLC1A5</i> | -1,01 | 1,03E-40 | -0,38 | 2,06E-06 |
| ENSG00000099860 | <i>GADD45B</i> | -1,29 | 1,26E-08 | -1,10 | 2,12E-06 |
| ENSG00000138080 | <i>EMILIN1</i> | -0,99 | 3,93E-20 | -0,53 | 2,15E-06 |
| ENSG00000149187 | <i>CELF1</i> | -0,48 | 4,84E-10 | -0,37 | 2,18E-06 |
| ENSG00000102763 | <i>KIAA0564</i> | -0,65 | 2,84E-09 | -0,53 | 2,18E-06 |
| ENSG00000139318 | <i>DUSP6</i> | -1,52 | 1,83E-53 | -0,49 | 2,37E-06 |
| ENSG00000113721 | <i>PDGFRB</i> | -1,43 | 8,54E-23 | -0,70 | 2,49E-06 |
| ENSG00000182534 | <i>MXRA7</i> | -1,12 | 2,72E-32 | -0,47 | 2,60E-06 |
| ENSG00000196950 | <i>SLC39A10</i> | -1,17 | 2,59E-18 | -0,66 | 2,67E-06 |
| ENSG00000138166 | <i>DUSP5</i> | -2,01 | 2,05E-14 | -1,25 | 2,76E-06 |
| ENSG00000198918 | <i>RPL39</i> | -0,71 | 6,27E-12 | -0,50 | 3,20E-06 |
| ENSG00000111321 | <i>LTBR</i> | -0,35 | 2,48E-03 | -0,53 | 3,38E-06 |
| ENSG00000129667 | <i>RHBDF2</i> | -1,31 | 1,37E-12 | -0,88 | 3,45E-06 |
| ENSG00000153879 | <i>CEBPG</i> | -0,53 | 1,11E-09 | -0,42 | 3,54E-06 |
| ENSG00000120942 | <i>UBIAD1</i> | -0,33 | 4,50E-03 | -0,52 | 3,80E-06 |
| ENSG00000119559 | <i>C19ORF25</i> | -0,60 | 1,21E-06 | -0,58 | 3,81E-06 |
| ENSG00000092964 | <i>DPYSL2</i> | -0,82 | 3,05E-19 | -0,44 | 3,91E-06 |
| ENSG00000130762 | <i>ARHGEF16</i> | -0,52 | 1,91E-04 | -0,64 | 4,14E-06 |
| ENSG00000115694 | <i>STK25</i> | -0,72 | 4,49E-20 | -0,38 | 4,23E-06 |
| ENSG00000197136 | <i>PCNXL3</i> | -0,27 | 8,78E-03 | -0,45 | 4,26E-06 |
| ENSG00000134352 | <i>IL6ST</i> | -0,24 | 1,09E-03 | -0,33 | 4,68E-06 |
| ENSG00000176490 | <i>DIRAS1</i> | -1,58 | 4,19E-11 | -1,12 | 4,70E-06 |
| ENSG00000149231 | <i>CCDC82</i> | -0,29 | 9,26E-03 | -0,49 | 4,81E-06 |
| ENSG00000169826 | <i>CSGALNACT2</i> | -0,84 | 4,21E-09 | -0,68 | 5,13E-06 |
| ENSG00000134970 | <i>TICAM2</i> | -0,56 | 2,63E-11 | -0,40 | 5,16E-06 |
| ENSG00000179833 | <i>SERTAD2</i> | -0,40 | 8,19E-06 | -0,42 | 5,17E-06 |
| ENSG00000164932 | <i>CTHRC1</i> | -2,19 | 5,90E-27 | -0,92 | 5,33E-06 |
| ENSG00000132382 | <i>MYBBP1A</i> | -0,38 | 2,66E-04 | -0,47 | 5,41E-06 |
| ENSG00000150093 | <i>ITGB1</i> | -0,74 | 3,98E-30 | -0,32 | 5,49E-06 |
| ENSG00000091513 | <i>TF</i> | -0,43 | 3,74E-07 | -0,39 | 5,55E-06 |
| ENSG00000183145 | <i>DSCR6</i> | -2,45 | 2,91E-18 | -1,29 | 5,63E-06 |

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|-----------------|---------------------|-------|----------|-------|----------|
| ENSG00000140859 | <i>KIFC3</i> | -0,27 | 8,55E-03 | -0,45 | 5,83E-06 |
| ENSG00000081377 | <i>CDC14B</i> | -0,28 | 8,63E-03 | -0,46 | 5,84E-06 |
| ENSG00000159842 | <i>ABR</i> | -0,65 | 3,00E-07 | -0,59 | 6,01E-06 |
| ENSG00000206053 | <i>HN1L</i> | -0,28 | 1,48E-03 | -0,39 | 6,16E-06 |
| ENSG00000155111 | <i>CDK19</i> | -0,38 | 7,40E-04 | -0,50 | 6,87E-06 |
| ENSG00000259974 | <i>LNC00261</i> | -0,67 | 5,21E-20 | -0,35 | 7,02E-06 |
| ENSG00000141505 | <i>ASGR1</i> | -0,51 | 4,33E-16 | -0,30 | 7,08E-06 |
| ENSG00000185112 | <i>FAM43A</i> | -1,46 | 5,77E-14 | -0,89 | 7,94E-06 |
| ENSG00000179820 | <i>MYADM</i> | -0,63 | 7,21E-10 | -0,47 | 8,15E-06 |
| ENSG00000186184 | <i>POLR1D</i> | -0,60 | 3,71E-12 | -0,40 | 8,41E-06 |
| ENSG00000074211 | <i>PPP2R2C</i> | -1,91 | 6,21E-14 | -1,15 | 8,44E-06 |
| ENSG00000106366 | <i>SERPINE1</i> | -2,38 | 2,49E-28 | -1,03 | 8,79E-06 |
| ENSG00000135069 | <i>C8ORF62</i> | -0,32 | 7,34E-05 | -0,36 | 9,27E-06 |
| ENSG00000237115 | <i>LOC100421775</i> | -1,83 | 6,45E-10 | -1,35 | 9,68E-06 |
| ENSG00000182022 | <i>CHST15</i> | -2,77 | 1,74E-58 | -0,81 | 1,03E-05 |
| ENSG00000177954 | <i>RPS27</i> | -0,57 | 1,88E-11 | -0,39 | 1,08E-05 |
| ENSG00000104885 | <i>DOT1L</i> | -0,73 | 1,86E-16 | -0,41 | 1,09E-05 |
| ENSG00000175906 | <i>ARL4D</i> | -0,81 | 1,06E-08 | -0,65 | 1,10E-05 |
| ENSG00000174804 | <i>FZD4</i> | -0,25 | 4,07E-04 | -0,31 | 1,11E-05 |
| ENSG00000165802 | <i>NELF</i> | -0,96 | 1,21E-34 | -0,37 | 1,11E-05 |
| ENSG00000111676 | <i>ATN1</i> | -0,45 | 3,22E-05 | -0,48 | 1,19E-05 |
| ENSG00000184557 | <i>SOCS3</i> | -1,81 | 1,13E-08 | -1,43 | 1,19E-05 |
| ENSG00000107833 | <i>NPM3</i> | -0,42 | 8,36E-04 | -0,55 | 1,23E-05 |
| ENSG00000076928 | <i>ARHGEF1</i> | -0,65 | 3,55E-10 | -0,47 | 1,26E-05 |
| ENSG00000124143 | <i>ARHGAP40</i> | -1,71 | 3,94E-08 | -1,40 | 1,27E-05 |
| ENSG00000079819 | <i>EPB41L2</i> | -1,10 | 4,38E-53 | -0,33 | 1,28E-05 |
| ENSG00000025772 | <i>TOMM34</i> | -0,65 | 1,80E-10 | -0,47 | 1,28E-05 |
| ENSG00000060982 | <i>BCAT1</i> | -1,07 | 6,26E-31 | -0,43 | 1,31E-05 |
| ENSG00000172270 | <i>BSG</i> | -0,59 | 2,33E-17 | -0,32 | 1,34E-05 |
| ENSG00000139722 | <i>VPS37B</i> | -0,65 | 1,04E-03 | -0,87 | 1,35E-05 |
| ENSG00000198796 | <i>ALPK2</i> | -1,27 | 3,78E-05 | -1,36 | 1,37E-05 |
| ENSG00000114115 | <i>RBP1</i> | -1,78 | 1,45E-13 | -1,07 | 1,37E-05 |

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG0000072110 | <i>ACTN1</i> | -0,78 | 1,39E-26 | -0,34 | 1,39E-05 |
| ENSG00000101162 | <i>TUBB1</i> | -2,29 | 1,98E-42 | -0,71 | 1,40E-05 |
| ENSG00000133612 | <i>AGAP3</i> | -0,39 | 3,61E-04 | -0,47 | 1,62E-05 |
| ENSG00000138623 | <i>SEMA7A</i> | -0,51 | 3,47E-04 | -0,62 | 1,63E-05 |
| ENSG00000165655 | <i>ZNF503</i> | -0,73 | 3,24E-05 | -0,77 | 1,64E-05 |
| ENSG00000213923 | <i>CSNK1E</i> | -0,58 | 1,78E-09 | -0,43 | 1,70E-05 |
| ENSG00000213719 | <i>CLIC1</i> | -1,13 | 5,92E-74 | -0,29 | 1,77E-05 |
| ENSG00000101745 | <i>ANKRD12</i> | -0,40 | 1,04E-03 | -0,51 | 1,83E-05 |
| ENSG00000118520 | <i>ARG1</i> | -1,90 | 1,70E-27 | -0,77 | 1,83E-05 |
| ENSG00000112242 | <i>E2F3</i> | -0,64 | 1,53E-06 | -0,59 | 1,86E-05 |
| ENSG00000114503 | <i>NCBP2</i> | -0,82 | 2,35E-20 | -0,40 | 1,91E-05 |
| ENSG00000214078 | <i>CPNE1</i> | -0,26 | 5,44E-04 | -0,32 | 2,09E-05 |
| ENSG00000197498 | <i>RPF2</i> | -0,50 | 7,63E-04 | -0,63 | 2,12E-05 |
| ENSG00000102760 | <i>C13ORF15</i> | -1,74 | 5,40E-08 | -1,41 | 2,23E-05 |
| ENSG00000033100 | <i>CHPF2</i> | -0,54 | 4,12E-07 | -0,47 | 2,23E-05 |
| ENSG00000184232 | <i>OAF</i> | -0,32 | 2,83E-03 | -0,45 | 2,30E-05 |
| ENSG00000073060 | <i>SCARB1</i> | -0,50 | 3,54E-12 | -0,32 | 2,47E-05 |
| ENSG00000087074 | <i>PPP1R15A</i> | -0,90 | 2,08E-08 | -0,70 | 2,80E-05 |
| ENSG00000005893 | <i>LAMP2</i> | -0,29 | 1,87E-04 | -0,33 | 2,88E-05 |
| ENSG00000059804 | <i>SLC2A3</i> | -1,06 | 2,96E-41 | -0,35 | 3,27E-05 |
| ENSG00000197063 | <i>MAFG</i> | -0,49 | 9,39E-06 | -0,47 | 3,38E-05 |
| ENSG00000110400 | <i>PVRL1</i> | -0,48 | 2,94E-03 | -0,67 | 3,48E-05 |
| ENSG00000251322 | <i>SHANK3</i> | -0,63 | 1,14E-05 | -0,61 | 3,48E-05 |
| ENSG00000148468 | <i>FAM171A1</i> | -0,98 | 3,27E-26 | -0,41 | 3,50E-05 |
| ENSG00000108244 | <i>KRT23</i> | -1,24 | 4,69E-15 | -0,68 | 3,59E-05 |
| ENSG00000010404 | <i>IDS</i> | -1,00 | 5,06E-11 | -0,65 | 3,61E-05 |
| ENSG00000136720 | <i>HS6ST1</i> | -0,37 | 2,38E-05 | -0,37 | 3,64E-05 |
| ENSG00000162998 | <i>FRZB</i> | -1,85 | 5,41E-09 | -1,37 | 3,79E-05 |
| ENSG00000136048 | <i>DRAM1</i> | -0,32 | 6,30E-03 | -0,47 | 3,81E-05 |
| ENSG00000170027 | <i>YWHAG</i> | -0,44 | 2,69E-10 | -0,30 | 4,00E-05 |
| ENSG00000119231 | <i>SENP5</i> | -0,45 | 1,52E-05 | -0,44 | 4,06E-05 |
| ENSG00000167173 | <i>C15ORF39</i> | -0,46 | 2,71E-04 | -0,52 | 4,41E-05 |

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000175224 | <i>KIAA0652</i> | -0,49 | 2,13E-09 | -0,35 | 4,53E-05 |
| ENSG00000105699 | <i>LSR</i> | -0,57 | 1,38E-07 | -0,46 | 4,56E-05 |
| ENSG00000167680 | <i>SEMA6B</i> | -0,29 | 9,63E-03 | -0,45 | 4,79E-05 |
| ENSG00000140107 | <i>C14ORF68</i> | -1,30 | 8,55E-10 | -0,89 | 4,85E-05 |
| ENSG00000135912 | <i>TTLL4</i> | -0,43 | 4,22E-07 | -0,36 | 4,86E-05 |
| ENSG00000100060 | <i>MFNG</i> | -1,77 | 2,20E-12 | -1,05 | 5,03E-05 |
| ENSG00000163597 | <i>SNHG16</i> | -0,25 | 5,01E-03 | -0,35 | 5,03E-05 |
| ENSG00000125944 | <i>HNRNPR</i> | -0,27 | 1,83E-04 | -0,29 | 5,12E-05 |
| ENSG00000171425 | <i>ZNF581</i> | -0,66 | 6,82E-05 | -0,68 | 5,20E-05 |
| ENSG00000104419 | <i>NDRG1</i> | -1,30 | 2,98E-12 | -0,80 | 5,33E-05 |
| ENSG00000155980 | <i>KIF5A</i> | -1,40 | 5,30E-16 | -0,72 | 5,86E-05 |
| ENSG00000249550 | <i>LINC01234</i> | -1,27 | 3,53E-08 | -0,96 | 6,10E-05 |
| ENSG00000167614 | <i>TTYH1</i> | -1,30 | 2,82E-05 | -1,27 | 6,17E-05 |
| ENSG00000073067 | <i>CYP2W1</i> | -1,22 | 3,97E-31 | -0,44 | 6,49E-05 |
| ENSG00000148175 | <i>STOM</i> | -0,98 | 3,71E-29 | -0,37 | 6,69E-05 |
| ENSG00000221983 | <i>UBA52</i> | -0,37 | 3,92E-06 | -0,33 | 6,94E-05 |
| ENSG00000105329 | <i>TGFB1</i> | -1,49 | 8,45E-18 | -0,71 | 7,33E-05 |
| ENSG00000247844 | <i>CCAT1</i> | -1,21 | 6,55E-23 | -0,51 | 7,41E-05 |
| ENSG00000149212 | <i>SESN3</i> | -0,58 | 2,08E-03 | -0,75 | 7,63E-05 |
| ENSG00000134294 | <i>SLC38A2</i> | -1,51 | 1,23E-75 | -0,36 | 7,77E-05 |
| ENSG00000134287 | <i>ARF3</i> | -0,30 | 1,36E-03 | -0,36 | 7,85E-05 |
| ENSG00000178209 | <i>LOC652460</i> | -0,81 | 4,16E-17 | -0,41 | 7,91E-05 |
| ENSG00000162927 | <i>PUS10</i> | -0,37 | 4,99E-04 | -0,42 | 7,97E-05 |
| ENSG00000132510 | <i>KDM6B</i> | -0,68 | 8,63E-07 | -0,56 | 8,25E-05 |
| ENSG00000110514 | <i>MADD</i> | -0,51 | 3,28E-07 | -0,41 | 8,40E-05 |
| ENSG00000160336 | <i>ZNF761</i> | -0,47 | 3,45E-03 | -0,62 | 8,80E-05 |
| ENSG00000189343 | <i>RPS2P46</i> | -0,41 | 1,45E-05 | -0,38 | 8,95E-05 |
| ENSG00000073792 | <i>IGF2BP2</i> | -0,36 | 2,99E-06 | -0,31 | 9,17E-05 |
| ENSG00000160271 | <i>RALGDS</i> | -0,58 | 1,80E-04 | -0,61 | 9,38E-05 |
| ENSG00000112186 | <i>CAP2</i> | -1,00 | 2,36E-14 | -0,54 | 9,47E-05 |
| ENSG00000159164 | <i>SV2A</i> | -1,62 | 3,33E-12 | -0,93 | 9,54E-05 |
| ENSG00000082269 | <i>FAM135A</i> | -1,06 | 1,93E-25 | -0,42 | 9,56E-05 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000107984 | <i>DKK1</i> | -0,79 | 3,82E-11 | -0,49 | 1,02E-04 |
| ENSG00000119125 | <i>GDA</i> | -2,20 | 1,93E-33 | -0,69 | 1,14E-04 |
| ENSG00000118680 | <i>MYL12B</i> | -0,46 | 8,64E-11 | -0,29 | 1,16E-04 |
| ENSG00000165030 | <i>NFIL3</i> | -0,89 | 5,68E-18 | -0,42 | 1,21E-04 |
| ENSG00000115009 | <i>CCL20</i> | -2,44 | 5,31E-51 | -0,68 | 1,23E-04 |
| ENSG00000167792 | <i>NDUFV1</i> | -0,29 | 2,59E-03 | -0,37 | 1,24E-04 |
| ENSG00000113916 | <i>BCL6</i> | -0,38 | 8,45E-05 | -0,38 | 1,28E-04 |
| ENSG00000153815 | <i>CMIP</i> | -0,31 | 5,40E-04 | -0,34 | 1,34E-04 |
| ENSG00000134909 | <i>ARHGAP32</i> | -0,38 | 6,14E-04 | -0,43 | 1,37E-04 |
| ENSG00000105722 | <i>ERF</i> | -0,36 | 4,37E-03 | -0,48 | 1,37E-04 |
| ENSG00000156858 | <i>PRR14</i> | -0,46 | 3,15E-03 | -0,60 | 1,37E-04 |
| ENSG00000085415 | <i>SEH1L</i> | -0,49 | 4,25E-07 | -0,38 | 1,40E-04 |
| ENSG00000050344 | <i>NFE2L3</i> | -0,67 | 6,95E-06 | -0,58 | 1,44E-04 |
| ENSG00000156096 | <i>UGT2B4</i> | -1,43 | 4,06E-17 | -0,67 | 1,46E-04 |
| ENSG00000198763 | <i>ND2</i> | -0,20 | 8,59E-03 | -0,28 | 1,48E-04 |
| ENSG00000120875 | <i>DUSP4</i> | -1,15 | 5,96E-04 | -1,28 | 1,48E-04 |
| ENSG00000115641 | <i>FHL2</i> | -1,52 | 5,64E-21 | -0,63 | 1,54E-04 |
| ENSG00000204387 | <i>C6ORF48</i> | -0,39 | 1,43E-04 | -0,39 | 1,54E-04 |
| ENSG00000160209 | <i>PDXK</i> | -0,22 | 6,46E-03 | -0,30 | 1,58E-04 |
| ENSG00000205339 | <i>IPO7</i> | -0,90 | 7,63E-47 | -0,26 | 1,59E-04 |
| ENSG00000166887 | <i>VPS39</i> | -0,33 | 4,20E-03 | -0,43 | 1,59E-04 |
| ENSG00000188895 | <i>MSL1</i> | -0,29 | 1,21E-03 | -0,34 | 1,61E-04 |
| ENSG00000131778 | <i>CHD1L</i> | -0,41 | 6,72E-07 | -0,32 | 1,64E-04 |
| ENSG00000153250 | <i>RBMS1</i> | -0,62 | 1,10E-15 | -0,31 | 1,76E-04 |
| ENSG00000128595 | <i>CALU</i> | -0,56 | 3,76E-17 | -0,27 | 1,78E-04 |
| ENSG00000163931 | <i>TKT</i> | -0,35 | 9,15E-08 | -0,25 | 1,78E-04 |
| ENSG00000189334 | <i>S100A14</i> | -0,92 | 4,92E-03 | -1,21 | 1,86E-04 |
| ENSG00000136888 | <i>ATP6V1G1</i> | -1,03 | 4,02E-24 | -0,41 | 1,96E-04 |
| ENSG00000112699 | <i>GMDS</i> | -0,73 | 1,03E-17 | -0,34 | 1,98E-04 |
| ENSG00000162885 | <i>B3GALNT2</i> | -0,51 | 5,07E-04 | -0,56 | 2,01E-04 |
| ENSG00000198952 | <i>SMG5</i> | -0,66 | 5,95E-15 | -0,34 | 2,01E-04 |
| ENSG00000112144 | <i>ICK</i> | -0,44 | 2,64E-05 | -0,40 | 2,05E-04 |

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| ENSG00000214274 | <i>ANG</i> | -0,76 | 1,22E-07 | -0,56 | 2,06E-04 |
| ENSG00000109572 | <i>CLCN3</i> | -0,32 | 1,66E-03 | -0,38 | 2,09E-04 |
| ENSG00000162383 | <i>SLC1A7</i> | -1,30 | 6,68E-05 | -1,24 | 2,09E-04 |
| ENSG00000006459 | <i>JHDM1D</i> | -1,26 | 3,23E-31 | -0,43 | 2,22E-04 |
| ENSG00000125798 | <i>FOXA2</i> | -0,57 | 6,81E-06 | -0,48 | 2,29E-04 |
| ENSG00000131779 | <i>PEX11B</i> | -0,52 | 3,81E-04 | -0,55 | 2,32E-04 |
| ENSG00000135404 | <i>CD63</i> | -0,44 | 2,70E-07 | -0,33 | 2,34E-04 |
| ENSG00000197181 | <i>HSD3B7</i> | -0,92 | 2,17E-03 | -1,10 | 2,40E-04 |
| ENSG00000101109 | <i>STK4</i> | -0,22 | 6,78E-03 | -0,29 | 2,44E-04 |
| ENSG00000157985 | <i>AGAP1</i> | -0,52 | 9,45E-08 | -0,38 | 2,51E-04 |
| ENSG00000185201 | <i>IFITM2</i> | -1,91 | 2,52E-17 | -0,84 | 2,65E-04 |
| ENSG00000173020 | <i>ADRBK1</i> | -0,40 | 5,43E-06 | -0,33 | 2,67E-04 |
| ENSG00000077150 | <i>NFKB2</i> | -0,65 | 1,28E-05 | -0,56 | 2,68E-04 |
| ENSG00000166526 | <i>ZNF3</i> | -0,48 | 1,42E-05 | -0,42 | 2,70E-04 |
| ENSG00000104611 | <i>SH2D4A</i> | -0,64 | 2,47E-04 | -0,64 | 2,72E-04 |
| ENSG00000067225 | <i>LOC652797</i> | -0,99 | 1,03E-39 | -0,30 | 2,75E-04 |
| ENSG00000106397 | <i>PLOD3</i> | -1,03 | 2,16E-27 | -0,37 | 2,79E-04 |
| ENSG00000173065 | <i>C17ORF63</i> | -0,75 | 3,99E-08 | -0,52 | 2,81E-04 |
| ENSG00000179195 | <i>ZNF664</i> | -0,32 | 1,41E-04 | -0,32 | 2,81E-04 |
| ENSG00000131873 | <i>CHSY1</i> | -1,21 | 4,65E-26 | -0,44 | 2,84E-04 |
| ENSG00000173334 | <i>TRIB1</i> | -1,15 | 6,52E-39 | -0,34 | 2,93E-04 |
| ENSG00000144283 | <i>PKP4</i> | -0,31 | 4,88E-04 | -0,32 | 2,94E-04 |
| ENSG00000171603 | <i>CLSTN1</i> | -0,41 | 2,70E-06 | -0,33 | 3,03E-04 |
| ENSG00000148737 | <i>TCF7L2</i> | -0,88 | 4,86E-12 | -0,48 | 3,06E-04 |
| ENSG00000184060 | <i>ADAP2</i> | -1,13 | 2,99E-04 | -1,14 | 3,08E-04 |
| ENSG00000102317 | <i>RBM3</i> | -0,62 | 2,83E-10 | -0,38 | 3,12E-04 |
| ENSG00000136859 | <i>ANGPTL2</i> | -1,66 | 1,36E-13 | -0,84 | 3,22E-04 |
| ENSG00000151693 | <i>ASAP2</i> | -0,80 | 1,56E-09 | -0,50 | 3,22E-04 |
| ENSG00000159399 | <i>HK2</i> | -1,95 | 1,11E-119 | -0,33 | 3,26E-04 |
| ENSG00000103342 | <i>GSPT1</i> | -0,27 | 1,77E-04 | -0,26 | 3,39E-04 |
| ENSG00000147883 | <i>CDKN2B</i> | -0,94 | 6,19E-04 | -1,00 | 3,54E-04 |
| ENSG00000126457 | <i>PRMT1</i> | -0,55 | 5,00E-13 | -0,29 | 3,54E-04 |

Hepatology

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| ENSG00000104408 | <i>EIF3E</i> | -0,46 | 5,84E-07 | -0,35 | 3,54E-04 |
| ENSG00000011275 | <i>RNF216</i> | -0,39 | 5,92E-05 | -0,35 | 3,61E-04 |
| ENSG00000180263 | <i>FGD6</i> | -0,60 | 1,01E-03 | -0,65 | 3,64E-04 |
| ENSG00000141456 | <i>PELP1</i> | -0,28 | 8,97E-03 | -0,37 | 3,77E-04 |
| ENSG00000182087 | <i>C19ORF6</i> | -0,39 | 2,05E-05 | -0,33 | 3,92E-04 |
| ENSG00000162772 | <i>ATF3</i> | -0,99 | 3,00E-07 | -0,71 | 4,14E-04 |
| ENSG00000130702 | <i>LAMA5</i> | -0,88 | 1,92E-21 | -0,35 | 4,24E-04 |
| ENSG00000125753 | <i>VASP</i> | -0,64 | 5,66E-08 | -0,43 | 4,39E-04 |
| ENSG00000099617 | <i>EFNA2</i> | -0,69 | 1,59E-04 | -0,66 | 4,65E-04 |
| ENSG00000114391 | <i>RPL24</i> | -0,53 | 3,86E-11 | -0,30 | 4,74E-04 |
| ENSG00000177410 | <i>C20ORF199</i> | -0,53 | 1,40E-05 | -0,44 | 4,91E-04 |
| ENSG00000147872 | <i>PLIN2</i> | -1,18 | 1,26E-09 | -0,72 | 5,00E-04 |
| ENSG00000187017 | <i>ESPN</i> | -0,49 | 4,16E-05 | -0,43 | 5,28E-04 |
| ENSG00000167291 | <i>TBC1D16</i> | -0,69 | 1,51E-16 | -0,31 | 5,29E-04 |
| ENSG00000253522 | <i>MIR3142HG</i> | -0,99 | 1,44E-03 | -1,09 | 5,46E-04 |
| ENSG00000125848 | <i>FLRT3</i> | -1,14 | 7,73E-06 | -0,91 | 5,50E-04 |
| ENSG00000125503 | <i>PPP1R12C</i> | -0,50 | 4,31E-04 | -0,50 | 5,50E-04 |
| ENSG00000160691 | <i>SHC1</i> | -0,40 | 1,58E-06 | -0,30 | 5,54E-04 |
| ENSG00000071073 | <i>MGAT4A</i> | -0,95 | 4,51E-34 | -0,29 | 5,59E-04 |
| ENSG00000181467 | <i>RAP2B</i> | -0,54 | 4,45E-05 | -0,47 | 5,78E-04 |
| ENSG00000134086 | <i>VHL</i> | -0,25 | 6,92E-03 | -0,31 | 5,78E-04 |
| ENSG00000158711 | <i>ELK4</i> | -0,62 | 1,34E-08 | -0,40 | 5,84E-04 |
| ENSG00000073849 | <i>ST6GAL1</i> | -0,57 | 4,45E-19 | -0,24 | 6,28E-04 |
| ENSG00000198720 | <i>ANKRD13B</i> | -0,83 | 4,08E-03 | -0,99 | 6,57E-04 |
| ENSG00000101493 | <i>ZNF516</i> | -0,46 | 7,27E-05 | -0,40 | 6,81E-04 |
| ENSG00000218226 | <i>TATDN2P2</i> | -1,34 | 3,38E-12 | -0,68 | 6,99E-04 |
| ENSG00000164543 | <i>STK17A</i> | -0,36 | 4,56E-03 | -0,43 | 7,03E-04 |
| ENSG00000151414 | <i>NEK7</i> | -0,88 | 4,16E-10 | -0,50 | 7,13E-04 |
| ENSG00000143126 | <i>CELSR2</i> | -0,73 | 5,00E-10 | -0,42 | 7,19E-04 |
| ENSG00000140943 | <i>MBTPS1</i> | -0,51 | 1,83E-09 | -0,31 | 7,24E-04 |
| ENSG00000064651 | <i>SLC12A2</i> | -0,58 | 9,92E-05 | -0,52 | 7,63E-04 |
| ENSG00000106348 | <i>IMPDH1</i> | -0,33 | 9,73E-03 | -0,43 | 7,73E-04 |

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| ENSG0000099904 | <i>ZDHC8</i> | -0,61 | 1,48E-04 | -0,55 | 7,92E-04 |
| ENSG00000103353 | <i>UBFD1</i> | -0,27 | 5,60E-05 | -0,23 | 8,09E-04 |
| ENSG00000129521 | <i>EGLN3</i> | -2,26 | 7,22E-20 | -0,89 | 8,34E-04 |
| ENSG00000167460 | <i>TPM4</i> | -1,05 | 1,99E-54 | -0,25 | 8,37E-04 |
| ENSG0000099953 | <i>MMP11</i> | -0,63 | 7,70E-04 | -0,64 | 8,50E-04 |
| ENSG00000197343 | <i>ZNF655</i> | -0,31 | 1,17E-03 | -0,33 | 8,51E-04 |
| ENSG00000196961 | <i>AP2A1</i> | -0,43 | 3,53E-06 | -0,32 | 8,51E-04 |
| ENSG00000132182 | <i>NUP210</i> | -0,44 | 9,19E-08 | -0,29 | 8,65E-04 |
| ENSG00000079313 | <i>REXO1</i> | -0,44 | 2,42E-03 | -0,48 | 8,73E-04 |
| ENSG00000105568 | <i>PPP2R1A</i> | -0,28 | 2,50E-03 | -0,31 | 8,75E-04 |
| ENSG00000261713 | <i>SSTR5-AS1</i> | -0,87 | 1,10E-04 | -0,78 | 8,75E-04 |
| ENSG00000196205 | <i>EEF1A1P5</i> | -0,61 | 1,76E-05 | -0,50 | 8,86E-04 |
| ENSG00000131724 | <i>IL13RA1</i> | -0,85 | 7,75E-34 | -0,25 | 8,86E-04 |
| ENSG00000174938 | <i>SEZ6L2</i> | -0,92 | 1,38E-13 | -0,44 | 9,01E-04 |
| ENSG00000017373 | <i>LOC100128100</i> | -0,72 | 1,16E-04 | -0,64 | 9,10E-04 |
| ENSG00000146282 | <i>RARS2</i> | -0,57 | 9,02E-09 | -0,35 | 9,16E-04 |
| ENSG00000166562 | <i>SEC11C</i> | -0,66 | 1,38E-11 | -0,35 | 9,34E-04 |
| ENSG00000196588 | <i>MKL1</i> | -0,65 | 2,59E-05 | -0,53 | 9,36E-04 |
| ENSG00000130511 | <i>SSBP4</i> | -1,10 | 4,86E-09 | -0,66 | 9,42E-04 |
| ENSG00000198938 | <i>ATP6</i> | -0,46 | 2,73E-08 | -0,29 | 9,45E-04 |
| ENSG00000120738 | <i>EGR1</i> | -1,75 | 8,02E-23 | -0,61 | 9,63E-04 |
| ENSG00000149823 | <i>C11ORF2</i> | -0,48 | 9,19E-05 | -0,42 | 9,70E-04 |
| ENSG00000105656 | <i>ELL</i> | -1,07 | 1,85E-08 | -0,65 | 1,02E-03 |
| ENSG00000183386 | <i>FHL3</i> | -0,89 | 1,44E-05 | -0,70 | 1,02E-03 |
| ENSG00000088832 | <i>FKBP1A</i> | -0,21 | 4,52E-03 | -0,24 | 1,08E-03 |
| ENSG00000236552 | <i>RPL13AP5</i> | -0,69 | 4,59E-05 | -0,58 | 1,10E-03 |
| ENSG00000167244 | <i>IGF2</i> | -0,85 | 8,47E-11 | -0,46 | 1,12E-03 |
| ENSG00000101752 | <i>MIB1</i> | -0,35 | 5,90E-05 | -0,30 | 1,14E-03 |
| ENSG00000213741 | <i>RPS29</i> | -0,73 | 8,31E-06 | -0,56 | 1,15E-03 |
| ENSG00000118046 | <i>STK11</i> | -0,76 | 4,88E-13 | -0,37 | 1,17E-03 |
| ENSG00000182199 | <i>SHMT2</i> | -0,69 | 8,63E-22 | -0,26 | 1,18E-03 |
| ENSG00000175832 | <i>ETV4</i> | -0,73 | 1,73E-23 | -0,26 | 1,19E-03 |

Hepatology

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|-----------------|--------------------|-------|----------|-------|----------|
| ENSG00000176871 | <i>WSB2</i> | -0,42 | 4,08E-04 | -0,39 | 1,19E-03 |
| ENSG00000102003 | <i>SYP</i> | -0,71 | 5,43E-03 | -0,83 | 1,21E-03 |
| ENSG00000148426 | <i>C10ORF47</i> | -0,90 | 4,06E-07 | -0,60 | 1,21E-03 |
| ENSG00000130158 | <i>DOCK6</i> | -0,97 | 9,38E-14 | -0,45 | 1,22E-03 |
| ENSG00000145495 | <i>MARCH6</i> | -0,26 | 3,39E-03 | -0,29 | 1,22E-03 |
| ENSG00000085788 | <i>DDHD2</i> | -0,58 | 1,87E-08 | -0,36 | 1,23E-03 |
| ENSG00000163788 | <i>SNRK</i> | -0,60 | 3,96E-06 | -0,44 | 1,25E-03 |
| ENSG00000123131 | <i>PRDX4</i> | -0,43 | 1,72E-06 | -0,30 | 1,25E-03 |
| ENSG00000184216 | <i>IRAK1</i> | -0,90 | 4,70E-31 | -0,27 | 1,27E-03 |
| ENSG00000108557 | <i>RAI1</i> | -0,41 | 1,62E-03 | -0,42 | 1,30E-03 |
| ENSG00000171456 | <i>ASXL1</i> | -0,41 | 2,96E-07 | -0,27 | 1,30E-03 |
| ENSG00000176533 | <i>GNG7</i> | -0,55 | 7,43E-03 | -0,67 | 1,31E-03 |
| ENSG00000092421 | <i>SEMA6A</i> | -0,97 | 2,44E-11 | -0,49 | 1,32E-03 |
| ENSG00000112320 | <i>SOBP</i> | -0,82 | 2,31E-08 | -0,50 | 1,36E-03 |
| ENSG00000064309 | <i>CDON</i> | -0,58 | 1,95E-04 | -0,52 | 1,41E-03 |
| ENSG00000145623 | <i>OSMR</i> | -1,45 | 4,42E-72 | -0,28 | 1,43E-03 |
| ENSG00000125089 | <i>SH3TC1</i> | -0,91 | 1,61E-09 | -0,51 | 1,44E-03 |
| ENSG00000198363 | <i>ASPH</i> | -0,50 | 2,55E-11 | -0,26 | 1,44E-03 |
| ENSG00000107372 | <i>LOC732229</i> | -0,35 | 3,97E-04 | -0,32 | 1,47E-03 |
| ENSG00000158813 | <i>EDA</i> | -0,46 | 4,75E-04 | -0,43 | 1,48E-03 |
| ENSG00000058335 | <i>RASGRF1</i> | -1,12 | 8,58E-04 | -1,09 | 1,49E-03 |
| ENSG00000188021 | <i>UBQLN2</i> | -0,60 | 1,02E-04 | -0,51 | 1,51E-03 |
| ENSG00000149218 | <i>ENDOD1</i> | -0,77 | 9,57E-08 | -0,48 | 1,55E-03 |
| ENSG00000130173 | <i>LOC55908</i> | -1,15 | 2,18E-16 | -0,48 | 1,59E-03 |
| ENSG00000047315 | <i>POLR2B</i> | -0,22 | 4,49E-03 | -0,25 | 1,61E-03 |
| ENSG00000153944 | <i>MSI2</i> | -0,53 | 3,11E-11 | -0,27 | 1,61E-03 |
| ENSG00000197077 | <i>KIAA1671</i> | -0,33 | 1,71E-03 | -0,34 | 1,61E-03 |
| ENSG00000232803 | <i>SLCO4A1-AS1</i> | -1,35 | 3,75E-05 | -1,08 | 1,62E-03 |
| ENSG00000163479 | <i>SSR2</i> | -0,46 | 1,53E-09 | -0,26 | 1,68E-03 |
| ENSG00000116514 | <i>RNF19B</i> | -0,65 | 1,55E-05 | -0,49 | 1,74E-03 |
| ENSG00000174915 | <i>PTDSS2</i> | -0,45 | 1,71E-03 | -0,46 | 1,78E-03 |
| ENSG00000142002 | <i>DPP9</i> | -0,31 | 8,17E-03 | -0,37 | 1,80E-03 |

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|-----------------|--------------------|-------|----------|-------|----------|
| ENSG00000144381 | <i>HSPD1</i> | -0,56 | 4,01E-17 | -0,23 | 1,90E-03 |
| ENSG00000114127 | <i>XRN1</i> | -0,49 | 7,69E-05 | -0,40 | 1,93E-03 |
| ENSG00000019186 | <i>CYP24A1</i> | -0,71 | 9,39E-11 | -0,36 | 1,93E-03 |
| ENSG00000104897 | <i>SF3A2</i> | -0,55 | 9,41E-05 | -0,45 | 1,95E-03 |
| ENSG00000130958 | <i>SLC35D2</i> | -0,26 | 4,57E-03 | -0,29 | 1,97E-03 |
| ENSG00000110619 | <i>CARS</i> | -0,84 | 1,87E-12 | -0,39 | 1,97E-03 |
| ENSG00000083444 | <i>PLOD1</i> | -0,96 | 1,79E-33 | -0,27 | 1,98E-03 |
| ENSG00000156875 | <i>HIAT1</i> | -0,29 | 2,68E-03 | -0,30 | 2,09E-03 |
| ENSG00000001617 | <i>SEMA3F</i> | -0,53 | 8,35E-04 | -0,51 | 2,09E-03 |
| ENSG00000158528 | <i>PPP1R9A</i> | -0,56 | 2,20E-08 | -0,33 | 2,14E-03 |
| ENSG00000142186 | <i>SCYL1</i> | -0,64 | 1,27E-12 | -0,30 | 2,16E-03 |
| ENSG00000100029 | <i>PES1</i> | -0,50 | 4,53E-06 | -0,35 | 2,18E-03 |
| ENSG00000198860 | <i>TSEN15</i> | -0,56 | 1,68E-05 | -0,42 | 2,23E-03 |
| ENSG00000173638 | <i>SLC19A1</i> | -0,45 | 2,58E-04 | -0,39 | 2,25E-03 |
| ENSG00000117010 | <i>ZNF684</i> | -0,82 | 7,68E-05 | -0,65 | 2,30E-03 |
| ENSG00000114315 | <i>HES1</i> | -0,67 | 2,07E-03 | -0,68 | 2,38E-03 |
| ENSG00000107263 | <i>RAPGEF1</i> | -0,63 | 6,08E-13 | -0,29 | 2,40E-03 |
| ENSG00000132470 | <i>ITGB4</i> | -0,53 | 7,75E-03 | -0,61 | 2,42E-03 |
| ENSG00000089351 | <i>GRAMD1A</i> | -1,60 | 1,32E-32 | -0,43 | 2,44E-03 |
| ENSG00000085978 | <i>ATG16L1</i> | -0,40 | 2,82E-04 | -0,35 | 2,44E-03 |
| ENSG00000115718 | <i>PROC</i> | -0,40 | 1,43E-06 | -0,27 | 2,47E-03 |
| ENSG00000236609 | <i>ZNF853</i> | -0,60 | 2,10E-04 | -0,51 | 2,49E-03 |
| ENSG00000023445 | <i>BIRC3</i> | -0,58 | 9,99E-03 | -0,68 | 2,51E-03 |
| ENSG00000104055 | <i>TGM5</i> | -1,03 | 2,41E-03 | -1,04 | 2,53E-03 |
| ENSG00000101294 | <i>HM13</i> | -0,29 | 5,87E-04 | -0,26 | 2,55E-03 |
| ENSG00000146858 | <i>ZC3HAV1L</i> | -0,55 | 7,19E-03 | -0,62 | 2,59E-03 |
| ENSG00000178188 | <i>SH2B1</i> | -0,49 | 7,85E-05 | -0,39 | 2,59E-03 |
| ENSG00000162736 | <i>NCSTN</i> | -0,41 | 1,90E-07 | -0,26 | 2,61E-03 |
| ENSG00000232324 | <i>AC008440.10</i> | -0,91 | 6,80E-03 | -1,02 | 2,68E-03 |
| ENSG00000138678 | <i>AGPAT9</i> | -0,56 | 7,39E-03 | -0,63 | 2,70E-03 |
| ENSG00000165661 | <i>QSOX2</i> | -0,79 | 3,90E-16 | -0,32 | 2,84E-03 |
| ENSG00000254986 | <i>DPP3</i> | -0,36 | 5,85E-04 | -0,32 | 2,85E-03 |

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|-----------------|----------------------|-------|----------|-------|----------|
| ENSG00000166510 | <i>CCDC68</i> | -0,92 | 1,37E-08 | -0,51 | 2,92E-03 |
| ENSG00000134058 | <i>CDK7</i> | -0,44 | 7,85E-05 | -0,35 | 2,92E-03 |
| ENSG00000196781 | <i>LOC645381</i> | -0,30 | 1,86E-03 | -0,29 | 2,94E-03 |
| ENSG00000064999 | <i>ANKS1A</i> | -0,35 | 1,13E-03 | -0,33 | 2,95E-03 |
| ENSG00000162714 | <i>ZNF496</i> | -0,60 | 5,33E-08 | -0,35 | 2,96E-03 |
| ENSG00000110711 | <i>AIP</i> | -0,61 | 2,37E-08 | -0,35 | 2,99E-03 |
| ENSG00000183458 | <i>RP11-958N24.1</i> | -1,05 | 1,87E-07 | -0,63 | 2,99E-03 |
| ENSG00000083454 | <i>P2RX5</i> | -1,11 | 4,41E-04 | -0,96 | 2,99E-03 |
| ENSG00000151552 | <i>QDPR</i> | -0,61 | 2,52E-09 | -0,32 | 3,02E-03 |
| ENSG00000123240 | <i>OPTN</i> | -0,34 | 4,28E-03 | -0,36 | 3,07E-03 |
| ENSG00000129187 | <i>DCTD</i> | -0,41 | 7,27E-06 | -0,29 | 3,08E-03 |
| ENSG00000049239 | <i>H6PD</i> | -0,32 | 9,64E-05 | -0,25 | 3,12E-03 |
| ENSG00000122026 | <i>RPL21</i> | -1,01 | 1,58E-29 | -0,30 | 3,14E-03 |
| ENSG00000136111 | <i>TBC1D4</i> | -0,87 | 8,57E-28 | -0,26 | 3,22E-03 |
| ENSG00000131482 | <i>G6PC</i> | -2,17 | 8,72E-28 | -0,65 | 3,24E-03 |
| ENSG00000126464 | <i>PRR12</i> | -0,48 | 3,21E-03 | -0,49 | 3,29E-03 |
| ENSG00000049449 | <i>RCN1</i> | -0,96 | 9,77E-16 | -0,38 | 3,29E-03 |
| ENSG00000105220 | <i>GPI</i> | -0,48 | 5,29E-11 | -0,24 | 3,30E-03 |
| ENSG00000183723 | <i>CMTM4</i> | -0,49 | 1,73E-08 | -0,28 | 3,32E-03 |
| ENSG00000105202 | <i>FBL</i> | -0,25 | 7,14E-03 | -0,27 | 3,33E-03 |
| ENSG00000117505 | <i>DR1</i> | -0,37 | 5,42E-04 | -0,32 | 3,33E-03 |
| ENSG00000138363 | <i>ATIC</i> | -0,23 | 2,40E-03 | -0,23 | 3,34E-03 |
| ENSG00000084092 | <i>C4ORF14</i> | -0,35 | 5,68E-03 | -0,38 | 3,37E-03 |
| ENSG00000134318 | <i>ROCK2</i> | -0,46 | 4,33E-09 | -0,25 | 3,39E-03 |
| ENSG00000131781 | <i>FMO5</i> | -1,03 | 2,41E-09 | -0,55 | 3,39E-03 |
| ENSG00000182979 | <i>MTA1</i> | -0,56 | 1,66E-06 | -0,36 | 3,40E-03 |
| ENSG00000155130 | <i>MARCKS</i> | -0,48 | 3,00E-07 | -0,29 | 3,40E-03 |
| ENSG00000136059 | <i>VILL</i> | -0,99 | 8,94E-04 | -0,90 | 3,47E-03 |
| ENSG00000131446 | <i>MGAT1</i> | -0,54 | 2,35E-10 | -0,27 | 3,49E-03 |
| ENSG00000173530 | <i>TNFRSF10D</i> | -1,05 | 3,35E-28 | -0,31 | 3,50E-03 |
| ENSG00000151292 | <i>CSNK1G3</i> | -0,55 | 3,09E-07 | -0,33 | 3,66E-03 |
| ENSG00000143570 | <i>SLC39A1</i> | -0,25 | 7,36E-03 | -0,27 | 3,74E-03 |

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000137962 | <i>ARHGAP29</i> | -0,84 | 5,14E-19 | -0,30 | 3,82E-03 |
| ENSG00000146830 | <i>GIGYF1</i> | -0,30 | 8,15E-03 | -0,34 | 3,86E-03 |
| ENSG00000147162 | <i>OGT</i> | -0,37 | 1,80E-04 | -0,30 | 3,90E-03 |
| ENSG00000212907 | <i>KRTAP4-11</i> | -0,41 | 7,04E-06 | -0,28 | 3,95E-03 |
| ENSG00000198756 | <i>GLT25D2</i> | -1,62 | 1,09E-25 | -0,47 | 3,98E-03 |
| ENSG00000182095 | <i>TNRC18B</i> | -1,02 | 7,83E-24 | -0,32 | 4,00E-03 |
| ENSG00000180574 | <i>EIF2S3L</i> | -0,95 | 7,26E-04 | -0,83 | 4,06E-03 |
| ENSG00000104969 | <i>SGTA</i> | -0,55 | 1,73E-10 | -0,27 | 4,09E-03 |
| ENSG00000085733 | <i>CTTN</i> | -0,36 | 9,71E-07 | -0,23 | 4,11E-03 |
| ENSG00000162591 | <i>MEGF6</i> | -0,43 | 8,01E-03 | -0,47 | 4,16E-03 |
| ENSG00000213654 | <i>GPSM3</i> | -1,76 | 3,19E-08 | -0,98 | 4,28E-03 |
| ENSG00000132463 | <i>GRSF1</i> | -0,30 | 5,42E-04 | -0,26 | 4,29E-03 |
| ENSG00000196233 | <i>LCOR</i> | -0,33 | 2,22E-03 | -0,32 | 4,30E-03 |
| ENSG00000137266 | <i>SLC22A23</i> | -0,59 | 2,94E-09 | -0,30 | 4,38E-03 |
| ENSG00000104964 | <i>AES</i> | -0,84 | 2,49E-18 | -0,30 | 4,50E-03 |
| ENSG00000125912 | <i>NCLN</i> | -0,54 | 1,08E-07 | -0,31 | 4,51E-03 |
| ENSG00000089916 | <i>C14ORF118</i> | -0,34 | 5,36E-03 | -0,35 | 4,52E-03 |
| ENSG00000162604 | <i>TM2D1</i> | -0,69 | 8,85E-05 | -0,52 | 4,57E-03 |
| ENSG00000198142 | <i>ANKRD57</i> | -0,49 | 8,44E-08 | -0,28 | 4,64E-03 |
| ENSG00000136098 | <i>NEK3</i> | -1,10 | 7,25E-19 | -0,38 | 4,66E-03 |
| ENSG00000074219 | <i>TEAD2</i> | -1,28 | 2,76E-09 | -0,65 | 4,70E-03 |
| ENSG00000169251 | <i>NMD3</i> | -0,43 | 1,47E-05 | -0,30 | 4,85E-03 |
| ENSG00000244306 | <i>LINC01296</i> | -0,51 | 3,82E-04 | -0,42 | 4,85E-03 |
| ENSG00000157978 | <i>LDLRAP1</i> | -0,58 | 2,32E-04 | -0,46 | 4,87E-03 |
| ENSG00000162729 | <i>IGSF8</i> | -0,68 | 1,05E-06 | -0,42 | 4,92E-03 |
| ENSG00000134070 | <i>IRAK2</i> | -0,44 | 8,81E-04 | -0,38 | 4,96E-03 |
| ENSG00000116251 | <i>RPL22</i> | -0,53 | 8,27E-09 | -0,28 | 5,00E-03 |
| ENSG00000198408 | <i>MGEA5</i> | -0,37 | 1,25E-04 | -0,29 | 5,04E-03 |
| ENSG00000185650 | <i>ZFP36L1</i> | -0,49 | 8,96E-06 | -0,33 | 5,07E-03 |
| ENSG00000140931 | <i>CMTM3</i> | -0,77 | 2,90E-12 | -0,33 | 5,10E-03 |
| ENSG00000134644 | <i>PUM1</i> | -0,21 | 4,59E-03 | -0,21 | 5,15E-03 |
| ENSG00000163682 | <i>RPL9</i> | -0,73 | 5,43E-16 | -0,28 | 5,29E-03 |

Hepatology

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|-----------------|-------------------|-------|----------|-------|----------|
| ENSG00000104805 | <i>NUCB1</i> | -0,35 | 2,77E-04 | -0,28 | 5,61E-03 |
| ENSG00000126934 | <i>LOC407835</i> | -0,32 | 6,90E-03 | -0,33 | 5,66E-03 |
| ENSG00000148843 | <i>PDCD11</i> | -0,60 | 3,79E-13 | -0,25 | 5,68E-03 |
| ENSG00000188735 | <i>TMEM120B</i> | -0,44 | 5,26E-03 | -0,45 | 5,69E-03 |
| ENSG00000227210 | <i>AC079145.4</i> | -1,13 | 6,27E-04 | -0,94 | 5,88E-03 |
| ENSG00000139679 | <i>LPAR6</i> | -2,56 | 6,63E-78 | -0,40 | 5,89E-03 |
| ENSG00000152520 | <i>PAN3</i> | -0,39 | 4,00E-03 | -0,38 | 5,91E-03 |
| ENSG00000125046 | <i>C3ORF32</i> | -0,49 | 1,44E-06 | -0,30 | 5,96E-03 |
| ENSG00000148498 | <i>PARD3</i> | -0,40 | 9,18E-06 | -0,26 | 5,99E-03 |
| ENSG00000141698 | <i>NT5C3L</i> | -0,28 | 6,79E-03 | -0,29 | 6,02E-03 |
| ENSG00000081087 | <i>OSTM1</i> | -0,41 | 3,21E-03 | -0,39 | 6,08E-03 |
| ENSG00000180354 | <i>C7ORF41</i> | -0,75 | 4,31E-06 | -0,47 | 6,09E-03 |
| ENSG00000143970 | <i>ASXL2</i> | -0,89 | 4,93E-27 | -0,25 | 6,09E-03 |
| ENSG00000128165 | <i>ADM2</i> | -1,09 | 1,12E-13 | -0,44 | 6,14E-03 |
| ENSG00000174705 | <i>SH3PXD2B</i> | -0,54 | 2,79E-03 | -0,51 | 6,15E-03 |
| ENSG00000170802 | <i>FOXN2</i> | -0,99 | 7,82E-26 | -0,28 | 6,34E-03 |
| ENSG00000169692 | <i>AGPAT2</i> | -1,19 | 9,31E-05 | -0,87 | 6,36E-03 |
| ENSG00000167615 | <i>LENG8</i> | -0,55 | 3,86E-06 | -0,35 | 6,44E-03 |
| ENSG00000173212 | <i>C10RF161</i> | -0,81 | 8,42E-04 | -0,68 | 6,49E-03 |
| ENSG00000160888 | <i>IER2</i> | -0,58 | 2,38E-04 | -0,45 | 6,50E-03 |
| ENSG00000076201 | <i>PTPN23</i> | -0,34 | 2,47E-03 | -0,31 | 6,63E-03 |
| ENSG00000151715 | <i>TMEM45B</i> | -1,14 | 3,36E-24 | -0,34 | 6,68E-03 |
| ENSG00000225210 | <i>DUXAP9</i> | -0,59 | 2,87E-03 | -0,56 | 6,72E-03 |
| ENSG00000167601 | <i>AXL</i> | -0,73 | 3,05E-04 | -0,58 | 6,73E-03 |
| ENSG00000141580 | <i>WDR45L</i> | -0,30 | 6,42E-04 | -0,25 | 6,81E-03 |
| ENSG00000160953 | <i>MUM1</i> | -0,36 | 2,07E-03 | -0,33 | 6,85E-03 |
| ENSG00000130304 | <i>SLC27A1</i> | -0,72 | 3,21E-03 | -0,68 | 6,92E-03 |
| ENSG00000167118 | <i>URM1</i> | -0,33 | 6,29E-03 | -0,33 | 6,94E-03 |
| ENSG00000116478 | <i>HDAC1</i> | -0,31 | 2,96E-04 | -0,24 | 6,95E-03 |
| ENSG00000156860 | <i>FBRS</i> | -0,31 | 2,45E-03 | -0,28 | 6,97E-03 |
| ENSG00000173153 | <i>ESRRA</i> | -0,55 | 1,23E-05 | -0,36 | 7,12E-03 |
| ENSG00000149806 | <i>FAU</i> | -0,35 | 3,81E-03 | -0,34 | 7,17E-03 |

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|-----------------|----------------------|-------|----------|-------|-----------|
| ENSG00000114480 | <i>GBE1</i> | -0,98 | 6,18E-17 | -0,35 | 7,24E-03 |
| ENSG00000052795 | <i>FNIP2</i> | -0,97 | 1,73E-28 | -0,26 | 7,24E-03 |
| ENSG00000163930 | <i>BAP1</i> | -0,26 | 4,31E-03 | -0,25 | 7,39E-03 |
| ENSG00000198242 | <i>RPL23A</i> | -0,59 | 2,88E-03 | -0,54 | 7,40E-03 |
| ENSG00000187840 | <i>EIF4EBP1</i> | -0,80 | 9,99E-10 | -0,38 | 7,49E-03 |
| ENSG00000198899 | <i>ATP6</i> | -0,29 | 1,49E-05 | -0,19 | 7,50E-03 |
| ENSG00000168209 | <i>DDIT4</i> | -1,59 | 3,06E-25 | -0,43 | 7,79E-03 |
| ENSG00000180644 | <i>PRF1</i> | -1,15 | 5,83E-04 | -0,93 | 7,84E-03 |
| ENSG00000140545 | <i>MFGE8</i> | -1,25 | 4,12E-07 | -0,70 | 7,91E-03 |
| ENSG00000117479 | <i>SLC19A2</i> | -0,69 | 1,24E-14 | -0,26 | 7,98E-03 |
| ENSG00000250251 | <i>PKD1P6</i> | -0,81 | 7,71E-05 | -0,57 | 8,16E-03 |
| ENSG00000138801 | <i>PAPSS1</i> | -0,26 | 7,20E-03 | -0,26 | 8,49E-03 |
| ENSG00000112715 | <i>VEGFA</i> | -0,95 | 1,63E-21 | -0,29 | 8,50E-03 |
| ENSG00000078403 | <i>MLLT10</i> | -0,38 | 9,00E-05 | -0,27 | 8,60E-03 |
| ENSG00000178607 | <i>ERN1</i> | -0,95 | 3,88E-08 | -0,49 | 8,65E-03 |
| ENSG00000102265 | <i>TIMP1</i> | -1,00 | 9,35E-08 | -0,53 | 8,75E-03 |
| ENSG00000166068 | <i>SPRED1</i> | -0,51 | 2,52E-04 | -0,39 | 8,90E-03 |
| ENSG00000170558 | <i>CDH2</i> | -0,61 | 3,70E-08 | -0,32 | 8,93E-03 |
| ENSG00000122547 | <i>EEPD1</i> | -0,77 | 1,42E-07 | -0,41 | 9,00E-03 |
| ENSG00000156482 | <i>RPL30</i> | -0,60 | 8,92E-04 | -0,50 | 9,06E-03 |
| ENSG00000143499 | <i>SMYD2</i> | -0,44 | 4,16E-05 | -0,30 | 9,11E-03 |
| ENSG00000159023 | <i>EPB41</i> | -0,26 | 3,68E-03 | -0,24 | 9,12E-03 |
| ENSG00000238290 | <i>RP11-431K24.1</i> | -1,17 | 2,92E-04 | -0,89 | 9,19E-03 |
| ENSG00000092445 | <i>TYRO3</i> | -0,92 | 1,99E-17 | -0,31 | 9,23E-03 |
| ENSG00000149639 | <i>C20ORF117</i> | -0,35 | 1,11E-03 | -0,29 | 9,36E-03 |
| ENSG00000137267 | <i>TUBB2A</i> | -0,76 | 2,85E-07 | -0,42 | 9,53E-03 |
| ENSG00000164930 | <i>FZD6</i> | -0,53 | 7,90E-04 | -0,43 | 9,56E-03 |
| ENSG00000131746 | <i>TNS4</i> | -1,66 | 1,43E-09 | -0,76 | 9,62E-03 |
| ENSG00000109501 | <i>WFS1</i> | -0,52 | 2,62E-06 | -0,31 | 9,82E-03 |
| ENSG00000084234 | <i>APLP2</i> | -0,49 | 2,37E-15 | -0,18 | 9,90E-03 |
| ENSG00000153714 | <i>C9ORF150</i> | -0,82 | 1,65E-05 | -0,52 | 9,94E-03 |
| ENSG00000243955 | <i>GSTA1</i> | 4,63 | 0,00E+00 | 3,37 | 2,05E-204 |

Hepatology

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|-----------------|------------------|------|-----------|------|-----------|
| ENSG00000196975 | <i>ANXA4</i> | 1,28 | 2,59E-78 | 1,88 | 1,18E-170 |
| ENSG00000170099 | <i>SERPINA6</i> | 1,32 | 1,15E-85 | 1,68 | 2,61E-139 |
| ENSG00000165092 | <i>ALDH1A1</i> | 2,16 | 1,31E-228 | 1,64 | 1,06E-130 |
| ENSG00000145692 | <i>BHMT</i> | 2,59 | 1,03E-117 | 2,43 | 4,08E-102 |
| ENSG00000162817 | <i>C1ORF115</i> | 2,06 | 3,43E-162 | 1,62 | 5,47E-98 |
| ENSG00000111846 | <i>GCNT2</i> | 1,30 | 5,62E-52 | 1,63 | 2,59E-81 |
| ENSG00000172296 | <i>SPTLC3</i> | 1,00 | 1,08E-41 | 1,31 | 2,08E-71 |
| ENSG00000066813 | <i>ACSM2A</i> | 2,70 | 2,34E-169 | 1,75 | 2,87E-68 |
| ENSG00000168385 | <i>SEPT2</i> | 0,89 | 2,91E-51 | 0,88 | 3,17E-49 |
| ENSG00000183747 | <i>ACSM2B</i> | 2,83 | 9,25E-72 | 2,30 | 3,65E-46 |
| ENSG00000122787 | <i>AKR1D1</i> | 1,81 | 5,60E-81 | 1,34 | 4,96E-43 |
| ENSG00000167780 | <i>SOAT2</i> | 0,47 | 1,61E-04 | 1,48 | 1,05E-39 |
| ENSG00000172239 | <i>LOC645139</i> | 1,18 | 3,96E-37 | 1,20 | 2,77E-38 |
| ENSG00000198099 | <i>ADH4</i> | 0,51 | 1,08E-07 | 1,17 | 2,14E-37 |
| ENSG00000113790 | <i>EHHADH</i> | 0,77 | 5,77E-14 | 1,26 | 5,60E-37 |
| ENSG00000171759 | <i>PAH</i> | 0,77 | 1,62E-35 | 0,78 | 2,54E-36 |
| ENSG00000244067 | <i>GSTA2</i> | 4,00 | 6,53E-81 | 2,73 | 4,76E-36 |
| ENSG00000102931 | <i>ARL2BP</i> | 1,93 | 1,38E-51 | 1,64 | 4,87E-36 |
| ENSG00000178988 | <i>MRFAP1L1</i> | 1,21 | 5,90E-34 | 1,25 | 5,24E-36 |
| ENSG00000105398 | <i>SULT2A1</i> | 1,23 | 6,04E-71 | 0,88 | 5,94E-36 |
| ENSG00000139219 | <i>COL2A1</i> | 1,29 | 3,18E-10 | 2,40 | 4,88E-35 |
| ENSG00000117528 | <i>ABCD3</i> | 0,94 | 2,81E-40 | 0,88 | 1,99E-34 |
| ENSG00000188582 | <i>PAQR9</i> | 0,35 | 3,73E-03 | 1,28 | 2,29E-34 |
| ENSG00000211452 | <i>DIO1</i> | 2,31 | 4,76E-65 | 1,71 | 3,15E-34 |
| ENSG00000256162 | <i>SMLR1</i> | 0,69 | 2,10E-24 | 0,83 | 4,00E-34 |
| ENSG00000131242 | <i>RAB11FIP4</i> | 0,88 | 1,87E-33 | 0,90 | 4,86E-34 |
| ENSG00000167910 | <i>CYP7A1</i> | 2,50 | 1,38E-49 | 2,08 | 2,04E-33 |
| ENSG00000166450 | <i>PRTG</i> | 0,46 | 1,69E-06 | 1,08 | 2,04E-33 |
| ENSG00000113583 | <i>C5ORF15</i> | 0,75 | 8,20E-16 | 1,09 | 4,39E-33 |
| ENSG00000111897 | <i>SERINC1</i> | 0,60 | 4,97E-12 | 1,01 | 5,17E-33 |
| ENSG00000089597 | <i>GANAB</i> | 0,29 | 3,17E-04 | 0,88 | 7,34E-33 |
| ENSG00000119711 | <i>ALDH6A1</i> | 1,26 | 2,85E-30 | 1,30 | 8,63E-32 |

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| ENSG00000129214 | <i>SHBG</i> | 0,71 | 4,98E-05 | 1,85 | 2,71E-31 |
| ENSG00000147400 | <i>CETN2</i> | 0,78 | 2,51E-15 | 1,13 | 2,98E-31 |
| ENSG00000073712 | <i>FERMT2</i> | 0,63 | 9,70E-15 | 0,92 | 1,27E-30 |
| ENSG00000175567 | <i>UCP2</i> | 0,79 | 4,17E-13 | 1,21 | 2,54E-30 |
| ENSG00000187189 | <i>TSPYL4</i> | 1,23 | 3,30E-31 | 1,21 | 9,88E-30 |
| ENSG00000134962 | <i>KLB</i> | 0,52 | 1,24E-11 | 0,84 | 1,23E-29 |
| ENSG00000104371 | <i>DKK4</i> | 2,09 | 2,71E-14 | 3,02 | 1,23E-29 |
| ENSG00000078668 | <i>VDAC3</i> | 0,89 | 3,49E-32 | 0,86 | 2,16E-29 |
| ENSG00000196502 | <i>SULT1A1</i> | 0,79 | 1,91E-24 | 0,87 | 2,21E-29 |
| ENSG00000144118 | <i>RALB</i> | 1,26 | 4,73E-29 | 1,27 | 3,73E-29 |
| ENSG00000113889 | <i>KNG1</i> | 0,62 | 1,44E-05 | 1,46 | 5,43E-28 |
| ENSG00000154930 | <i>ACSS1</i> | 0,39 | 8,53E-05 | 1,00 | 2,62E-27 |
| ENSG00000117601 | <i>SERPINC1</i> | 1,47 | 2,74E-90 | 0,81 | 2,35E-26 |
| ENSG00000182326 | <i>C1S</i> | 1,84 | 2,36E-56 | 1,27 | 4,29E-26 |
| ENSG00000112494 | <i>UNC93A</i> | 0,39 | 3,26E-03 | 1,26 | 5,52E-26 |
| ENSG00000109814 | <i>UGDH</i> | 1,13 | 1,96E-66 | 0,71 | 6,94E-26 |
| ENSG00000100814 | <i>CCNB1IP1</i> | 0,61 | 1,76E-08 | 1,09 | 7,77E-26 |
| ENSG00000132541 | <i>HRSP12</i> | 0,60 | 1,49E-04 | 1,49 | 3,11E-25 |
| ENSG00000172795 | <i>DCP2</i> | 0,42 | 9,38E-06 | 0,92 | 4,21E-25 |
| ENSG00000165410 | <i>CFL2</i> | 0,62 | 8,11E-20 | 0,71 | 5,99E-25 |
| ENSG00000081051 | <i>AFP</i> | 0,62 | 1,74E-18 | 0,73 | 2,01E-24 |
| ENSG00000170482 | <i>SLC23A1</i> | 2,51 | 6,14E-56 | 1,70 | 2,05E-24 |
| ENSG00000112078 | <i>KCTD20</i> | 0,65 | 1,61E-17 | 0,77 | 3,52E-24 |
| ENSG00000120697 | <i>ALG5</i> | 1,07 | 1,62E-13 | 1,44 | 4,73E-24 |
| ENSG00000120262 | <i>C6ORF97</i> | 1,02 | 5,83E-07 | 1,94 | 5,13E-24 |
| ENSG00000096092 | <i>TMEM14A</i> | 1,76 | 2,39E-53 | 1,20 | 5,89E-24 |
| ENSG00000134049 | <i>IER3IP1</i> | 1,00 | 2,11E-15 | 1,26 | 7,37E-24 |
| ENSG00000171612 | <i>SLC25A33</i> | 0,58 | 4,49E-09 | 0,97 | 1,17E-23 |
| ENSG00000072210 | <i>ALDH3A2</i> | 0,65 | 2,60E-19 | 0,72 | 2,25E-23 |
| ENSG00000151632 | <i>AKR1C2</i> | 1,89 | 5,68E-140 | 0,77 | 2,30E-23 |
| ENSG00000134717 | <i>BTF3L4</i> | 0,45 | 1,04E-04 | 1,08 | 2,33E-23 |
| ENSG00000186106 | <i>ANKRD46</i> | 0,53 | 7,69E-05 | 1,24 | 2,52E-23 |

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| ENSG00000165526 | <i>RPUSD4</i> | 0,58 | 2,07E-07 | 1,03 | 3,80E-22 |
| ENSG00000130779 | <i>CLIP1</i> | 0,38 | 3,28E-05 | 0,83 | 6,21E-22 |
| ENSG00000140284 | <i>SLC27A2</i> | 0,69 | 3,55E-07 | 1,24 | 1,11E-21 |
| ENSG00000163624 | <i>CDS1</i> | 0,56 | 5,71E-04 | 1,41 | 1,40E-21 |
| ENSG00000152601 | <i>MBNL1</i> | 1,01 | 2,85E-30 | 0,86 | 1,62E-21 |
| ENSG00000156510 | <i>HKDC1</i> | 1,22 | 4,12E-22 | 1,21 | 1,74E-21 |
| ENSG00000152620 | <i>C5ORF33</i> | 0,33 | 1,11E-04 | 0,75 | 3,96E-21 |
| ENSG00000146416 | <i>AIG1</i> | 0,67 | 3,12E-14 | 0,82 | 2,01E-20 |
| ENSG00000196177 | <i>ACADSB</i> | 0,18 | 7,29E-03 | 0,57 | 2,59E-20 |
| ENSG00000205364 | <i>MT1M</i> | 1,66 | 8,55E-08 | 2,74 | 3,63E-20 |
| ENSG00000185155 | <i>MIXL1</i> | 0,90 | 3,03E-19 | 0,93 | 3,78E-20 |
| ENSG00000102753 | <i>KPNA3</i> | 0,55 | 1,69E-11 | 0,74 | 3,78E-20 |
| ENSG00000115425 | <i>PECR</i> | 0,63 | 4,43E-14 | 0,76 | 7,48E-20 |
| ENSG00000196937 | <i>FAM3C</i> | 0,44 | 2,44E-03 | 1,19 | 1,64E-19 |
| ENSG00000121578 | <i>B4GALT4</i> | 0,41 | 1,36E-03 | 1,04 | 2,09E-19 |
| ENSG00000100744 | <i>C14ORF129</i> | 0,48 | 8,26E-04 | 1,17 | 2,55E-19 |
| ENSG00000154080 | <i>CHST9</i> | 1,50 | 7,49E-19 | 1,53 | 2,80E-19 |
| ENSG00000138823 | <i>MTTP</i> | 1,07 | 1,68E-31 | 0,83 | 7,26E-19 |
| ENSG00000139324 | <i>TMTC3</i> | 1,15 | 5,63E-22 | 1,07 | 8,14E-19 |
| ENSG00000115365 | <i>LANCL1</i> | 0,61 | 8,08E-18 | 0,63 | 8,69E-19 |
| ENSG00000153130 | <i>SCOC</i> | 0,41 | 5,01E-05 | 0,85 | 1,13E-18 |
| ENSG00000121858 | <i>TNFSF10</i> | 0,79 | 1,81E-14 | 0,90 | 2,46E-18 |
| ENSG00000169562 | <i>GJB1</i> | 0,35 | 1,74E-05 | 0,68 | 5,43E-18 |
| ENSG00000147255 | <i>IGSF1</i> | 0,70 | 3,17E-24 | 0,61 | 6,69E-18 |
| ENSG00000153066 | <i>TXNDC11</i> | 0,52 | 4,01E-10 | 0,70 | 1,49E-17 |
| ENSG00000008394 | <i>MGST1</i> | 0,80 | 2,35E-23 | 0,70 | 1,99E-17 |
| ENSG00000111052 | <i>LIN7A</i> | 0,49 | 1,34E-06 | 0,82 | 2,34E-17 |
| ENSG00000166035 | <i>LIPC</i> | 0,64 | 2,30E-08 | 0,94 | 4,65E-17 |
| ENSG00000110169 | <i>HPX</i> | 1,70 | 8,79E-22 | 1,51 | 5,94E-17 |
| ENSG00000198417 | <i>MT1F</i> | 2,10 | 1,10E-18 | 2,00 | 7,92E-17 |
| ENSG00000132837 | <i>DMGDH</i> | 1,33 | 4,67E-20 | 1,23 | 1,08E-16 |
| ENSG00000090512 | <i>FETUB</i> | 1,87 | 1,56E-19 | 1,74 | 1,61E-16 |

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| ENSG00000151090 | <i>THRB</i> | 1,27 | 3,34E-32 | 0,91 | 2,88E-16 |
| ENSG00000138308 | <i>PLA2G12B</i> | 0,93 | 5,99E-15 | 0,98 | 3,11E-16 |
| ENSG00000182985 | <i>CADM1</i> | 0,98 | 8,73E-30 | 0,73 | 3,17E-16 |
| ENSG00000132677 | <i>RHBG</i> | 1,60 | 5,77E-60 | 0,84 | 3,19E-16 |
| ENSG00000204899 | <i>C13ORF37</i> | 0,81 | 9,49E-09 | 1,12 | 3,25E-16 |
| ENSG00000137869 | <i>CYP19A1</i> | 0,64 | 3,87E-06 | 1,08 | 5,94E-16 |
| ENSG00000127946 | <i>HIP1</i> | 0,85 | 1,33E-08 | 1,19 | 7,00E-16 |
| ENSG00000137831 | <i>UACA</i> | 0,58 | 1,10E-06 | 0,93 | 7,52E-16 |
| ENSG00000204128 | <i>C2ORF72</i> | 0,66 | 3,06E-22 | 0,56 | 8,10E-16 |
| ENSG00000196660 | <i>SLC30A10</i> | 0,68 | 8,92E-10 | 0,88 | 8,50E-16 |
| ENSG00000133835 | <i>HSD17B4</i> | 0,42 | 5,61E-09 | 0,56 | 1,49E-15 |
| ENSG00000205978 | <i>NYNRIN</i> | 2,23 | 4,84E-28 | 1,68 | 1,57E-15 |
| ENSG00000170456 | <i>DENND5B</i> | 0,42 | 1,63E-05 | 0,73 | 2,18E-15 |
| ENSG00000100997 | <i>ABHD12</i> | 0,44 | 5,04E-06 | 0,74 | 2,65E-15 |
| ENSG00000184117 | <i>NIPSNAP1</i> | 0,30 | 2,21E-04 | 0,61 | 2,82E-15 |
| ENSG00000141504 | <i>SAT2</i> | 0,91 | 9,51E-18 | 0,85 | 3,14E-15 |
| ENSG00000144045 | <i>DOX1</i> | 0,55 | 3,06E-08 | 0,76 | 3,70E-15 |
| ENSG00000112294 | <i>ALDH5A1</i> | 0,48 | 3,49E-08 | 0,68 | 3,72E-15 |
| ENSG00000168234 | <i>TTC39C</i> | 0,89 | 8,85E-16 | 0,88 | 4,43E-15 |
| ENSG00000170899 | <i>GSTA4</i> | 1,03 | 3,34E-20 | 0,89 | 5,98E-15 |
| ENSG00000138356 | <i>AOX1</i> | 0,89 | 1,08E-36 | 0,57 | 8,04E-15 |
| ENSG00000175854 | <i>C9ORF119</i> | 0,86 | 1,83E-08 | 1,17 | 9,36E-15 |
| ENSG00000104325 | <i>DECR1</i> | 0,94 | 1,04E-18 | 0,84 | 9,69E-15 |
| ENSG00000165650 | <i>PDZD8</i> | 0,66 | 1,25E-14 | 0,67 | 1,23E-14 |
| ENSG00000138413 | <i>IDH1</i> | 0,67 | 4,10E-35 | 0,43 | 1,32E-14 |
| ENSG00000069535 | <i>MAOB</i> | 1,12 | 9,82E-29 | 0,80 | 1,63E-14 |
| ENSG00000119927 | <i>GPAM</i> | 0,93 | 7,26E-38 | 0,57 | 1,98E-14 |
| ENSG00000114021 | <i>NIT2</i> | 0,52 | 7,95E-05 | 0,94 | 2,87E-14 |
| ENSG00000115073 | <i>ACTR1B</i> | 0,49 | 1,77E-08 | 0,65 | 2,91E-14 |
| ENSG00000100075 | <i>SLC25A1</i> | 0,84 | 5,15E-27 | 0,61 | 2,96E-14 |
| ENSG00000131981 | <i>LGALS3</i> | 0,36 | 1,04E-03 | 0,78 | 3,02E-14 |
| ENSG00000077254 | <i>USP33</i> | 0,72 | 3,69E-11 | 0,82 | 3,15E-14 |

Hepatology

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| ENSG00000156968 | <i>MPV17L</i> | 0,35 | 3,77E-03 | 0,84 | 5,14E-14 |
| ENSG00000129354 | <i>AP1M2</i> | 1,62 | 4,23E-36 | 1,02 | 6,66E-14 |
| ENSG00000143322 | <i>ABL2</i> | 0,60 | 1,42E-08 | 0,78 | 8,17E-14 |
| ENSG00000117834 | <i>SLC5A9</i> | 1,09 | 3,54E-27 | 0,78 | 9,43E-14 |
| ENSG00000183844 | <i>FAM3B</i> | 1,12 | 6,87E-21 | 0,91 | 1,06E-13 |
| ENSG00000100867 | <i>DHRS2</i> | 0,53 | 1,27E-19 | 0,44 | 1,36E-13 |
| ENSG00000079332 | <i>SAR1A</i> | 0,32 | 6,81E-04 | 0,65 | 3,40E-13 |
| ENSG00000091483 | <i>FH</i> | 0,36 | 2,87E-05 | 0,61 | 4,28E-13 |
| ENSG00000149809 | <i>TM7SF2</i> | 0,54 | 1,16E-06 | 0,78 | 4,41E-13 |
| ENSG00000023909 | <i>GCLM</i> | 0,84 | 3,34E-16 | 0,76 | 5,38E-13 |
| ENSG00000088766 | <i>CRLS1</i> | 0,44 | 9,54E-10 | 0,52 | 5,93E-13 |
| ENSG00000143921 | <i>ABCG8</i> | 1,60 | 3,73E-35 | 0,98 | 6,57E-13 |
| ENSG00000111275 | <i>ALDH2</i> | 0,71 | 1,41E-15 | 0,64 | 1,16E-12 |
| ENSG00000089220 | <i>PEBP1</i> | 0,67 | 1,63E-22 | 0,50 | 1,22E-12 |
| ENSG00000124370 | <i>MCEE</i> | 0,51 | 7,01E-04 | 0,99 | 1,36E-12 |
| ENSG00000152078 | <i>TMEM56</i> | 0,82 | 6,17E-18 | 0,69 | 1,40E-12 |
| ENSG00000137992 | <i>DBT</i> | 0,42 | 4,45E-03 | 0,95 | 1,74E-12 |
| ENSG00000124383 | <i>MPHOSPH10</i> | 0,49 | 1,61E-11 | 0,52 | 1,80E-12 |
| ENSG00000072364 | <i>AFF4</i> | 0,51 | 1,94E-10 | 0,57 | 1,87E-12 |
| ENSG00000138796 | <i>HADH</i> | 0,57 | 1,25E-09 | 0,66 | 1,98E-12 |
| ENSG00000228716 | <i>DHFR</i> | 0,63 | 1,69E-11 | 0,67 | 2,24E-12 |
| ENSG00000181019 | <i>NQO1</i> | 1,33 | 1,28E-70 | 0,55 | 2,36E-12 |
| ENSG00000144908 | <i>ALDH1L1</i> | 1,22 | 1,90E-31 | 0,77 | 2,39E-12 |
| ENSG00000187630 | <i>DHRS4L2</i> | 0,89 | 5,02E-11 | 0,95 | 2,55E-12 |
| ENSG00000080824 | <i>HSP90AA1</i> | 0,35 | 1,33E-10 | 0,38 | 2,71E-12 |
| ENSG00000196083 | <i>IL1RAP</i> | 0,57 | 4,78E-09 | 0,67 | 5,87E-12 |
| ENSG00000128311 | <i>TST</i> | 0,55 | 2,78E-06 | 0,79 | 6,59E-12 |
| ENSG00000109205 | <i>ODAM</i> | 0,51 | 1,89E-03 | 1,04 | 6,76E-12 |
| ENSG00000178802 | <i>MPI</i> | 0,40 | 4,89E-04 | 0,74 | 8,69E-12 |
| ENSG00000116774 | <i>OLFML3</i> | 2,58 | 2,21E-30 | 1,63 | 9,13E-12 |
| ENSG00000164134 | <i>NAA15</i> | 0,43 | 4,16E-05 | 0,68 | 9,26E-12 |
| ENSG00000168060 | <i>NAALADL1</i> | 1,63 | 1,96E-37 | 0,92 | 9,78E-12 |

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| ENSG00000171848 | <i>RRM2</i> | 0,40 | 3,25E-08 | 0,49 | 1,10E-11 |
| ENSG00000106853 | <i>PTGR1</i> | 2,74 | 2,92E-65 | 1,17 | 1,50E-11 |
| ENSG00000117280 | <i>RAB7L1</i> | 0,77 | 1,98E-07 | 0,98 | 1,50E-11 |
| ENSG00000167074 | <i>TEF</i> | 0,98 | 1,27E-10 | 1,03 | 1,63E-11 |
| ENSG00000166483 | <i>WEE1</i> | 0,39 | 5,10E-04 | 0,72 | 1,85E-11 |
| ENSG00000115255 | <i>REEP6</i> | 1,21 | 2,73E-21 | 0,89 | 1,88E-11 |
| ENSG00000125144 | <i>MT1G</i> | 1,80 | 3,38E-13 | 1,68 | 2,00E-11 |
| ENSG00000243818 | <i>RP11-372E1.4</i> | 1,02 | 4,49E-08 | 1,23 | 2,21E-11 |
| ENSG00000117632 | <i>STMN1</i> | 0,33 | 6,56E-05 | 0,53 | 2,32E-11 |
| ENSG00000092841 | <i>MYL6</i> | 0,24 | 5,84E-03 | 0,55 | 2,33E-11 |
| ENSG00000070501 | <i>POLB</i> | 0,97 | 7,28E-12 | 0,96 | 3,72E-11 |
| ENSG00000197535 | <i>MYO5A</i> | 0,81 | 2,94E-09 | 0,90 | 3,74E-11 |
| ENSG00000091583 | <i>APOH</i> | 0,80 | 5,09E-43 | 0,40 | 4,67E-11 |
| ENSG00000082146 | <i>STRADB</i> | 0,66 | 3,26E-15 | 0,56 | 4,86E-11 |
| ENSG00000173482 | <i>PTPRM</i> | 0,61 | 1,09E-10 | 0,62 | 4,89E-11 |
| ENSG00000180964 | <i>TCEAL8</i> | 0,37 | 7,92E-03 | 0,83 | 6,38E-11 |
| ENSG00000108187 | <i>PBLD</i> | 1,42 | 8,75E-11 | 1,43 | 9,04E-11 |
| ENSG00000159322 | <i>ADPGK</i> | 0,36 | 8,65E-04 | 0,66 | 1,11E-10 |
| ENSG00000149679 | <i>CABLES2</i> | 0,74 | 2,34E-07 | 0,90 | 1,53E-10 |
| ENSG00000132437 | <i>DDC</i> | 0,98 | 6,70E-22 | 0,68 | 1,61E-10 |
| ENSG00000182704 | <i>TSKU</i> | 1,38 | 1,44E-38 | 0,72 | 1,77E-10 |
| ENSG00000128394 | <i>APOBEC3F</i> | 0,87 | 1,12E-03 | 1,59 | 1,83E-10 |
| ENSG00000108479 | <i>GALK1</i> | 0,91 | 3,25E-17 | 0,71 | 1,84E-10 |
| ENSG00000171174 | <i>RBKS</i> | 0,59 | 4,84E-04 | 1,02 | 1,92E-10 |
| ENSG00000064225 | <i>ST3GAL6</i> | 0,70 | 1,19E-08 | 0,79 | 2,29E-10 |
| ENSG00000138036 | <i>DYNC2LI1</i> | 0,58 | 8,06E-04 | 1,03 | 2,46E-10 |
| ENSG00000137274 | <i>BPHL</i> | 0,60 | 1,70E-04 | 0,96 | 3,01E-10 |
| ENSG00000198130 | <i>HIBCH</i> | 0,31 | 5,60E-03 | 0,66 | 3,01E-10 |
| ENSG00000197894 | <i>ADH5</i> | 0,24 | 4,13E-04 | 0,40 | 4,57E-10 |
| ENSG00000076003 | <i>MCM6</i> | 0,95 | 6,43E-20 | 0,68 | 5,37E-10 |
| ENSG00000170873 | <i>MTSS1</i> | 0,69 | 2,03E-14 | 0,58 | 5,67E-10 |
| ENSG00000070087 | <i>PFN2</i> | 0,46 | 1,34E-06 | 0,59 | 5,77E-10 |

Hepatology

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|-----------------|-----------------|------|-----------|------|----------|
| ENSG00000108576 | <i>SLC6A4</i> | 1,05 | 9,77E-18 | 0,79 | 5,84E-10 |
| ENSG00000237172 | <i>B3GNT9</i> | 1,19 | 3,97E-05 | 1,73 | 6,32E-10 |
| ENSG00000099968 | <i>BCL2L13</i> | 0,68 | 5,10E-08 | 0,78 | 6,86E-10 |
| ENSG00000145703 | <i>IQGAP2</i> | 0,57 | 4,14E-16 | 0,45 | 6,88E-10 |
| ENSG00000110436 | <i>SLC1A2</i> | 0,25 | 4,79E-03 | 0,51 | 7,98E-10 |
| ENSG00000198074 | <i>AKR1B10</i> | 2,76 | 4,56E-120 | 0,79 | 1,05E-09 |
| ENSG00000151413 | <i>NUBPL</i> | 0,92 | 7,12E-19 | 0,66 | 1,19E-09 |
| ENSG00000148180 | <i>GSN</i> | 0,80 | 2,29E-44 | 0,37 | 1,19E-09 |
| ENSG00000118508 | <i>RAB32</i> | 0,62 | 1,22E-10 | 0,59 | 1,39E-09 |
| ENSG00000029364 | <i>SLC39A9</i> | 0,73 | 2,17E-17 | 0,54 | 1,39E-09 |
| ENSG00000234127 | <i>TRIM26</i> | 1,10 | 4,55E-30 | 0,62 | 1,54E-09 |
| ENSG00000120860 | <i>CCDC53</i> | 0,70 | 2,79E-05 | 0,97 | 1,71E-09 |
| ENSG00000105852 | <i>PON3</i> | 1,22 | 2,49E-18 | 0,88 | 2,07E-09 |
| ENSG00000130770 | <i>ATPIF1</i> | 0,38 | 2,87E-03 | 0,71 | 2,11E-09 |
| ENSG00000177565 | <i>TBL1XR1</i> | 0,83 | 4,06E-17 | 0,62 | 2,28E-09 |
| ENSG00000143819 | <i>EPHX1</i> | 1,53 | 1,10E-69 | 0,56 | 2,33E-09 |
| ENSG00000186115 | <i>CYP4F2</i> | 0,79 | 2,46E-04 | 1,22 | 2,54E-09 |
| ENSG00000095209 | <i>TMEM38B</i> | 0,47 | 3,93E-04 | 0,76 | 2,67E-09 |
| ENSG00000131844 | <i>MCCC2</i> | 0,35 | 9,10E-06 | 0,46 | 2,78E-09 |
| ENSG00000138078 | <i>PREPL</i> | 0,66 | 1,81E-11 | 0,59 | 3,25E-09 |
| ENSG00000174327 | <i>SLC16A13</i> | 1,01 | 1,02E-10 | 0,94 | 3,41E-09 |
| ENSG00000124713 | <i>GNMT</i> | 1,83 | 1,24E-14 | 1,46 | 3,47E-09 |
| ENSG00000013583 | <i>HEBP1</i> | 0,96 | 6,95E-11 | 0,89 | 3,69E-09 |
| ENSG00000150977 | <i>RILPL2</i> | 1,10 | 3,04E-15 | 0,85 | 3,90E-09 |
| ENSG00000100373 | <i>UPK3A</i> | 2,24 | 4,01E-36 | 1,14 | 4,47E-09 |
| ENSG00000062282 | <i>DGAT2</i> | 1,35 | 5,35E-46 | 0,60 | 4,74E-09 |
| ENSG00000148584 | <i>A1CF</i> | 0,57 | 6,60E-09 | 0,58 | 4,75E-09 |
| ENSG00000039068 | <i>CDH1</i> | 0,81 | 3,11E-08 | 0,85 | 7,83E-09 |
| ENSG00000113494 | <i>PRLR</i> | 0,34 | 5,72E-03 | 0,67 | 7,83E-09 |
| ENSG00000115355 | <i>CCDC88A</i> | 0,28 | 7,61E-03 | 0,56 | 8,32E-09 |
| ENSG00000162433 | <i>AK3L1</i> | 0,47 | 1,52E-10 | 0,43 | 8,63E-09 |
| ENSG00000042286 | <i>AIFM2</i> | 0,80 | 1,22E-16 | 0,58 | 9,09E-09 |

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|-----------------|-----------------|------|----------|------|----------|
| ENSG00000147475 | <i>ERLIN2</i> | 0,29 | 9,14E-04 | 0,48 | 1,03E-08 |
| ENSG00000038210 | <i>PI4K2B</i> | 0,44 | 1,35E-06 | 0,52 | 1,11E-08 |
| ENSG00000171100 | <i>MTM1</i> | 0,52 | 7,60E-05 | 0,73 | 1,16E-08 |
| ENSG00000145476 | <i>CYP4V2</i> | 0,60 | 9,23E-05 | 0,85 | 1,21E-08 |
| ENSG00000070061 | <i>IKBKAP</i> | 0,56 | 2,20E-16 | 0,40 | 1,26E-08 |
| ENSG00000014641 | <i>MDH1</i> | 0,26 | 1,53E-03 | 0,45 | 1,30E-08 |
| ENSG00000141349 | <i>G6PC3</i> | 0,35 | 6,26E-03 | 0,67 | 1,40E-08 |
| ENSG00000161533 | <i>ACOX1</i> | 0,43 | 3,93E-09 | 0,42 | 1,43E-08 |
| ENSG00000166816 | <i>LDHD</i> | 1,06 | 5,37E-08 | 1,11 | 1,75E-08 |
| ENSG00000115919 | <i>KYNU</i> | 0,55 | 5,21E-09 | 0,54 | 1,77E-08 |
| ENSG00000183978 | <i>CCDC56</i> | 0,65 | 1,21E-11 | 0,56 | 1,81E-08 |
| ENSG00000251164 | <i>HULC</i> | 0,92 | 1,71E-06 | 1,07 | 2,21E-08 |
| ENSG00000197165 | <i>SULT1A2</i> | 1,07 | 1,26E-17 | 0,74 | 2,22E-08 |
| ENSG00000119333 | <i>WDR34</i> | 0,66 | 1,28E-06 | 0,76 | 2,35E-08 |
| ENSG00000162704 | <i>ARPC5</i> | 0,41 | 3,69E-05 | 0,54 | 2,59E-08 |
| ENSG00000131018 | <i>SYNE1</i> | 1,43 | 1,93E-44 | 0,61 | 3,03E-08 |
| ENSG00000231574 | <i>KCCAT211</i> | 1,69 | 3,39E-10 | 1,53 | 3,27E-08 |
| ENSG00000143158 | <i>BRP44</i> | 0,89 | 1,80E-14 | 0,67 | 3,45E-08 |
| ENSG00000100983 | <i>GSS</i> | 0,62 | 2,98E-13 | 0,49 | 3,96E-08 |
| ENSG00000166974 | <i>MAPRE2</i> | 0,27 | 9,23E-03 | 0,53 | 5,41E-08 |
| ENSG00000129691 | <i>ASH2L</i> | 0,57 | 1,87E-08 | 0,56 | 6,35E-08 |
| ENSG00000142166 | <i>IFNAR1</i> | 0,49 | 3,28E-07 | 0,52 | 6,71E-08 |
| ENSG00000197557 | <i>TTC30A</i> | 0,82 | 5,03E-04 | 1,22 | 6,71E-08 |
| ENSG00000134575 | <i>ACP2</i> | 0,52 | 1,21E-04 | 0,72 | 7,31E-08 |
| ENSG00000165934 | <i>CPSF2</i> | 0,37 | 3,19E-05 | 0,47 | 7,60E-08 |
| ENSG00000188690 | <i>UROS</i> | 0,65 | 9,25E-07 | 0,71 | 7,76E-08 |
| ENSG00000117305 | <i>HMGCL</i> | 0,49 | 1,60E-04 | 0,68 | 8,00E-08 |
| ENSG00000102804 | <i>TSC22D1</i> | 0,95 | 4,22E-19 | 0,60 | 9,15E-08 |
| ENSG00000141034 | <i>C17ORF39</i> | 0,58 | 1,36E-03 | 0,93 | 9,47E-08 |
| ENSG00000180667 | <i>YOD1</i> | 0,45 | 1,02E-03 | 0,69 | 9,49E-08 |
| ENSG00000006282 | <i>SPATA20</i> | 0,92 | 3,69E-21 | 0,55 | 9,51E-08 |
| ENSG00000139410 | <i>SDSL</i> | 0,92 | 1,20E-03 | 1,45 | 9,93E-08 |

Hepatology

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|-----------------|---------------------|------|----------|------|----------|
| ENSG00000173402 | <i>DAG1</i> | 0,30 | 3,03E-04 | 0,43 | 1,03E-07 |
| ENSG00000110243 | <i>APOA5</i> | 0,43 | 7,61E-06 | 0,51 | 1,06E-07 |
| ENSG00000166311 | <i>SMPD1</i> | 0,85 | 4,83E-07 | 0,90 | 1,08E-07 |
| ENSG00000095139 | <i>ARCN1</i> | 0,35 | 3,09E-07 | 0,37 | 1,10E-07 |
| ENSG00000005189 | <i>LOC81691</i> | 1,05 | 2,16E-11 | 0,86 | 1,17E-07 |
| ENSG00000176974 | <i>SHMT1</i> | 0,82 | 1,94E-14 | 0,60 | 1,32E-07 |
| ENSG00000088305 | <i>DNMT3B</i> | 0,99 | 3,38E-12 | 0,79 | 1,33E-07 |
| ENSG00000004897 | <i>CDC27</i> | 0,22 | 5,14E-03 | 0,40 | 1,42E-07 |
| ENSG00000120948 | <i>TARDBP</i> | 0,41 | 6,75E-08 | 0,40 | 1,45E-07 |
| ENSG00000115486 | <i>GGCX</i> | 0,43 | 3,82E-07 | 0,45 | 1,48E-07 |
| ENSG00000187164 | <i>KIAA1598</i> | 0,40 | 1,69E-04 | 0,55 | 1,53E-07 |
| ENSG00000205423 | <i>LOC100130176</i> | 0,69 | 1,12E-06 | 0,75 | 1,53E-07 |
| ENSG00000117408 | <i>IPO13</i> | 0,78 | 7,15E-12 | 0,62 | 1,66E-07 |
| ENSG00000113594 | <i>LIFR</i> | 0,51 | 4,42E-06 | 0,58 | 1,83E-07 |
| ENSG00000162735 | <i>PEX19</i> | 0,48 | 1,71E-05 | 0,58 | 1,86E-07 |
| ENSG00000124120 | <i>TTPAL</i> | 0,76 | 2,19E-13 | 0,56 | 1,97E-07 |
| ENSG00000087586 | <i>AURKA</i> | 0,38 | 1,11E-06 | 0,41 | 2,38E-07 |
| ENSG00000164039 | <i>BDH2</i> | 1,44 | 1,05E-14 | 1,02 | 2,43E-07 |
| ENSG00000198919 | <i>DZIP3</i> | 0,85 | 1,55E-13 | 0,62 | 2,46E-07 |
| ENSG00000137713 | <i>PPP2R1B</i> | 0,30 | 4,16E-05 | 0,38 | 2,48E-07 |
| ENSG00000155640 | <i>C10ORF12</i> | 0,70 | 8,48E-05 | 0,91 | 2,48E-07 |
| ENSG00000094631 | <i>HDAC6</i> | 0,63 | 1,97E-12 | 0,48 | 2,62E-07 |
| ENSG00000135617 | <i>C2ORF7</i> | 1,23 | 3,31E-14 | 0,88 | 2,65E-07 |
| ENSG00000139865 | <i>TTC6</i> | 0,98 | 1,88E-09 | 0,86 | 2,86E-07 |
| ENSG00000147465 | <i>STAR</i> | 1,15 | 1,04E-08 | 1,05 | 2,98E-07 |
| ENSG00000106789 | <i>CORO2A</i> | 0,50 | 3,91E-07 | 0,51 | 3,02E-07 |
| ENSG00000132840 | <i>BHMT2</i> | 0,43 | 1,26E-04 | 0,57 | 3,04E-07 |
| ENSG00000092820 | <i>EZR</i> | 0,53 | 5,10E-12 | 0,41 | 3,06E-07 |
| ENSG00000172955 | <i>ADH6</i> | 0,82 | 1,20E-30 | 0,39 | 3,15E-07 |
| ENSG00000156398 | <i>SFXN2</i> | 0,92 | 1,36E-09 | 0,80 | 3,15E-07 |
| ENSG00000181274 | <i>FRAT2</i> | 0,86 | 1,94E-08 | 0,80 | 3,33E-07 |
| ENSG00000170915 | <i>PAQR8</i> | 0,44 | 2,13E-06 | 0,47 | 4,03E-07 |

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|-----------------|---------------------|------|----------|------|----------|
| ENSG00000158793 | <i>NIT1</i> | 0,50 | 1,62E-03 | 0,77 | 4,20E-07 |
| ENSG00000157326 | <i>DHRS4</i> | 0,76 | 1,41E-05 | 0,88 | 4,29E-07 |
| ENSG00000168246 | <i>UBTD2</i> | 0,29 | 6,12E-03 | 0,51 | 4,51E-07 |
| ENSG00000139194 | <i>RBP5</i> | 1,03 | 2,90E-08 | 0,96 | 4,54E-07 |
| ENSG00000136935 | <i>GOLGA1</i> | 0,73 | 3,56E-13 | 0,53 | 4,69E-07 |
| ENSG00000163964 | <i>PIGX</i> | 0,38 | 9,82E-03 | 0,70 | 4,69E-07 |
| ENSG00000104524 | <i>PYCRL</i> | 0,61 | 4,63E-03 | 1,01 | 5,18E-07 |
| ENSG00000163644 | <i>PPM1K</i> | 0,76 | 5,45E-04 | 1,07 | 5,66E-07 |
| ENSG00000197780 | <i>TAF13</i> | 0,64 | 1,71E-05 | 0,73 | 6,58E-07 |
| ENSG00000080371 | <i>RAB21</i> | 0,56 | 1,40E-07 | 0,54 | 6,71E-07 |
| ENSG00000150764 | <i>DIXDC1</i> | 0,57 | 7,79E-10 | 0,48 | 7,33E-07 |
| ENSG00000137561 | <i>TTPA</i> | 2,11 | 7,06E-19 | 1,27 | 8,09E-07 |
| ENSG00000168566 | <i>SNRNP48</i> | 0,33 | 7,61E-04 | 0,46 | 8,16E-07 |
| ENSG00000185515 | <i>BRCC3</i> | 0,34 | 5,59E-03 | 0,57 | 8,24E-07 |
| ENSG00000198721 | <i>PECI</i> | 0,52 | 3,80E-07 | 0,51 | 8,40E-07 |
| ENSG00000138175 | <i>ARL3</i> | 0,54 | 3,96E-03 | 0,87 | 8,46E-07 |
| ENSG00000075945 | <i>KIFAP3</i> | 0,87 | 7,36E-08 | 0,82 | 8,63E-07 |
| ENSG00000108984 | <i>MAP2K6</i> | 1,35 | 8,29E-13 | 0,98 | 8,69E-07 |
| ENSG00000142677 | <i>IL22RA1</i> | 1,30 | 9,58E-21 | 0,73 | 1,06E-06 |
| ENSG00000239713 | <i>APOBEC3G</i> | 1,20 | 4,73E-05 | 1,43 | 1,08E-06 |
| ENSG00000101003 | <i>GINS1</i> | 0,30 | 8,25E-03 | 0,52 | 1,10E-06 |
| ENSG00000152056 | <i>AP1S3</i> | 0,56 | 1,03E-03 | 0,81 | 1,11E-06 |
| ENSG00000198001 | <i>IRAK4</i> | 0,74 | 8,23E-05 | 0,90 | 1,17E-06 |
| ENSG00000091262 | <i>ABCC6</i> | 1,12 | 1,90E-33 | 0,49 | 1,18E-06 |
| ENSG00000254233 | <i>RP11-242J7.1</i> | 1,48 | 6,97E-15 | 0,98 | 1,21E-06 |
| ENSG00000170445 | <i>HARS</i> | 0,32 | 2,76E-03 | 0,50 | 1,24E-06 |
| ENSG00000185745 | <i>IFIT1</i> | 1,79 | 2,82E-14 | 1,21 | 1,25E-06 |
| ENSG00000204682 | <i>C10ORF114</i> | 0,61 | 1,84E-04 | 0,78 | 1,27E-06 |
| ENSG00000156735 | <i>BAG4</i> | 0,31 | 4,23E-03 | 0,50 | 1,28E-06 |
| ENSG00000179528 | <i>LBX2</i> | 1,14 | 3,54E-09 | 0,97 | 1,33E-06 |
| ENSG00000183044 | <i>ABAT</i> | 0,46 | 1,22E-09 | 0,37 | 1,47E-06 |
| ENSG00000034693 | <i>PEX3</i> | 0,52 | 4,66E-04 | 0,70 | 1,71E-06 |

Hepatology

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|-----------------|-------------------|------|----------|------|----------|
| ENSG0000083093 | <i>PALB2</i> | 0,54 | 2,08E-07 | 0,50 | 2,36E-06 |
| ENSG00000158435 | <i>C2ORF29</i> | 0,34 | 2,04E-04 | 0,43 | 2,38E-06 |
| ENSG00000124508 | <i>BTN2A2</i> | 0,72 | 4,45E-05 | 0,83 | 2,41E-06 |
| ENSG00000144852 | <i>NR1I2</i> | 1,46 | 1,20E-18 | 0,84 | 2,45E-06 |
| ENSG00000122591 | <i>FAM126A</i> | 0,46 | 7,74E-07 | 0,45 | 2,46E-06 |
| ENSG00000116906 | <i>GNPAT</i> | 0,60 | 3,54E-15 | 0,38 | 2,53E-06 |
| ENSG00000164187 | <i>LMBRD2</i> | 0,46 | 7,88E-03 | 0,77 | 2,57E-06 |
| ENSG00000185787 | <i>MORF4</i> | 0,29 | 2,40E-05 | 0,32 | 2,79E-06 |
| ENSG00000212978 | <i>AC016747.3</i> | 0,82 | 5,76E-09 | 0,68 | 2,83E-06 |
| ENSG00000164089 | <i>AGXT2L1</i> | 1,63 | 3,10E-13 | 1,11 | 2,97E-06 |
| ENSG00000006576 | <i>PHTF2</i> | 0,44 | 3,85E-03 | 0,67 | 3,06E-06 |
| ENSG00000120265 | <i>PCMT1</i> | 0,37 | 8,55E-06 | 0,39 | 3,08E-06 |
| ENSG00000035141 | <i>FAM136A</i> | 0,75 | 2,64E-16 | 0,46 | 3,23E-06 |
| ENSG00000166391 | <i>MOGAT2</i> | 1,30 | 2,29E-50 | 0,45 | 3,26E-06 |
| ENSG00000127952 | <i>STYXL1</i> | 0,55 | 1,34E-03 | 0,77 | 3,49E-06 |
| ENSG00000101400 | <i>SNTA1</i> | 0,85 | 2,13E-12 | 0,59 | 3,55E-06 |
| ENSG00000135387 | <i>CAPRIN1</i> | 0,63 | 2,39E-25 | 0,30 | 3,57E-06 |
| ENSG00000178772 | <i>CPN2</i> | 0,96 | 2,21E-31 | 0,42 | 3,81E-06 |
| ENSG00000144401 | <i>FAM119A</i> | 0,55 | 8,25E-06 | 0,58 | 3,98E-06 |
| ENSG00000100714 | <i>MTHFD1</i> | 0,43 | 4,03E-08 | 0,37 | 4,11E-06 |
| ENSG00000100897 | <i>DCAF11</i> | 0,35 | 1,87E-07 | 0,32 | 4,35E-06 |
| ENSG00000198585 | <i>NUDT16</i> | 0,74 | 4,52E-12 | 0,51 | 4,70E-06 |
| ENSG00000106780 | <i>MEGF9</i> | 0,42 | 8,28E-05 | 0,49 | 4,87E-06 |
| ENSG00000138744 | <i>NAAA</i> | 0,49 | 1,03E-03 | 0,66 | 5,15E-06 |
| ENSG00000118564 | <i>FBXL5</i> | 0,52 | 1,55E-05 | 0,55 | 5,42E-06 |
| ENSG00000178537 | <i>SLC25A20</i> | 1,36 | 1,26E-27 | 0,62 | 6,28E-06 |
| ENSG00000142892 | <i>PIGK</i> | 0,43 | 7,69E-04 | 0,57 | 6,41E-06 |
| ENSG00000103496 | <i>STX4</i> | 0,69 | 6,43E-08 | 0,60 | 6,46E-06 |
| ENSG00000137364 | <i>TPMT</i> | 0,55 | 1,59E-05 | 0,58 | 6,55E-06 |
| ENSG00000145217 | <i>SLC26A1</i> | 0,92 | 1,48E-10 | 0,68 | 6,91E-06 |
| ENSG00000167046 | <i>FLJ32154</i> | 1,65 | 1,59E-07 | 1,45 | 7,06E-06 |
| ENSG00000083799 | <i>CYLD</i> | 0,46 | 1,27E-04 | 0,54 | 7,56E-06 |

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|-----------------|----------------|------|----------|------|----------|
| ENSG00000182378 | <i>PLCXD1</i> | 0,29 | 1,45E-04 | 0,34 | 7,76E-06 |
| ENSG00000250799 | <i>PRODH2</i> | 0,62 | 2,40E-10 | 0,46 | 7,81E-06 |
| ENSG00000130988 | <i>RGN</i> | 0,75 | 4,43E-12 | 0,51 | 8,36E-06 |
| ENSG00000142507 | <i>PSMB6</i> | 0,28 | 9,40E-03 | 0,45 | 9,04E-06 |
| ENSG00000127884 | <i>ECHS1</i> | 0,27 | 1,36E-03 | 0,37 | 9,05E-06 |
| ENSG00000179761 | <i>PIPOX</i> | 0,98 | 5,73E-48 | 0,33 | 1,04E-05 |
| ENSG00000164124 | <i>TMEM144</i> | 0,50 | 2,51E-03 | 0,70 | 1,14E-05 |
| ENSG00000176209 | <i>C8ORF40</i> | 0,55 | 7,01E-03 | 0,85 | 1,16E-05 |
| ENSG00000197375 | <i>SLC22A5</i> | 0,52 | 7,27E-03 | 0,80 | 1,26E-05 |
| ENSG00000186088 | <i>PION</i> | 0,64 | 4,74E-05 | 0,69 | 1,27E-05 |
| ENSG00000079482 | <i>OPHN1</i> | 0,83 | 7,16E-04 | 1,05 | 1,39E-05 |
| ENSG00000159403 | <i>C1R</i> | 1,26 | 1,70E-06 | 1,17 | 1,47E-05 |
| ENSG00000155629 | <i>PIK3AP1</i> | 0,91 | 2,42E-06 | 0,85 | 1,47E-05 |
| ENSG00000110245 | <i>APOC3</i> | 0,79 | 4,84E-24 | 0,36 | 1,59E-05 |
| ENSG00000163743 | <i>RCHY1</i> | 1,26 | 1,59E-19 | 0,66 | 1,59E-05 |
| ENSG00000124588 | <i>NQO2</i> | 0,77 | 8,22E-08 | 0,64 | 1,62E-05 |
| ENSG00000128581 | <i>RABL5</i> | 0,71 | 1,10E-03 | 0,92 | 1,62E-05 |
| ENSG00000151502 | <i>VPS26B</i> | 0,47 | 3,94E-06 | 0,45 | 1,69E-05 |
| ENSG00000137714 | <i>FDX1</i> | 0,43 | 3,56E-03 | 0,61 | 1,71E-05 |
| ENSG00000119812 | <i>FAM98A</i> | 0,27 | 3,42E-03 | 0,39 | 1,75E-05 |
| ENSG00000079974 | <i>RABL2B</i> | 0,86 | 8,44E-06 | 0,84 | 2,01E-05 |
| ENSG00000039537 | <i>C6</i> | 1,10 | 8,92E-04 | 1,39 | 2,05E-05 |
| ENSG00000173898 | <i>SPTBN2</i> | 0,51 | 7,93E-05 | 0,55 | 2,18E-05 |
| ENSG00000166347 | <i>CYB5A</i> | 0,62 | 3,13E-12 | 0,40 | 2,23E-05 |
| ENSG00000198624 | <i>CCDC69</i> | 0,97 | 1,03E-21 | 0,47 | 2,26E-05 |
| ENSG00000172367 | <i>PDZD3</i> | 2,12 | 1,56E-11 | 1,40 | 2,61E-05 |
| ENSG00000139055 | <i>ERP27</i> | 1,98 | 4,41E-17 | 1,08 | 2,82E-05 |
| ENSG00000169955 | <i>ZNF747</i> | 0,62 | 1,41E-03 | 0,79 | 3,04E-05 |
| ENSG00000173193 | <i>PARP14</i> | 1,55 | 1,51E-45 | 0,51 | 3,20E-05 |
| ENSG00000172007 | <i>RAB33B</i> | 0,68 | 5,36E-05 | 0,71 | 3,34E-05 |
| ENSG00000142156 | <i>COL6A1</i> | 0,87 | 1,39E-10 | 0,60 | 3,36E-05 |
| ENSG00000197417 | <i>SHPK</i> | 0,58 | 8,94E-03 | 0,88 | 3,44E-05 |

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| ENSG00000114107 | <i>CEP70</i> | 0,86 | 8,80E-08 | 0,70 | 3,48E-05 |
| ENSG00000005469 | <i>CROT</i> | 0,78 | 1,04E-08 | 0,59 | 3,77E-05 |
| ENSG00000170439 | <i>METTL7B</i> | 1,23 | 6,36E-17 | 0,66 | 4,03E-05 |
| ENSG00000104687 | <i>GSR</i> | 0,40 | 1,70E-06 | 0,35 | 4,07E-05 |
| ENSG00000084693 | <i>AGBL5</i> | 0,27 | 8,09E-03 | 0,40 | 4,09E-05 |
| ENSG00000125868 | <i>DSTN</i> | 0,33 | 5,96E-05 | 0,35 | 4,14E-05 |
| ENSG00000198689 | <i>SLC9A6</i> | 0,81 | 1,98E-06 | 0,72 | 4,42E-05 |
| ENSG00000204536 | <i>CCHCR1</i> | 0,71 | 2,28E-07 | 0,58 | 4,44E-05 |
| ENSG00000180198 | <i>RCC1</i> | 0,40 | 6,85E-06 | 0,38 | 4,48E-05 |
| ENSG00000144535 | <i>DIS3L2</i> | 0,78 | 6,30E-09 | 0,58 | 4,73E-05 |
| ENSG00000092208 | <i>SIP1</i> | 0,49 | 6,14E-05 | 0,50 | 4,85E-05 |
| ENSG00000116171 | <i>SCP2</i> | 0,47 | 3,99E-09 | 0,34 | 4,94E-05 |
| ENSG00000012174 | <i>MBTPS2</i> | 0,64 | 1,69E-10 | 0,43 | 5,41E-05 |
| ENSG00000117155 | <i>SSX2IP</i> | 0,68 | 6,58E-07 | 0,58 | 5,45E-05 |
| ENSG00000135218 | <i>CD36</i> | 2,09 | 1,67E-39 | 0,73 | 5,68E-05 |
| ENSG00000121579 | <i>NAA50</i> | 0,31 | 3,69E-05 | 0,30 | 5,72E-05 |
| ENSG00000165475 | <i>CRYL1</i> | 0,39 | 5,56E-04 | 0,46 | 5,91E-05 |
| ENSG00000121486 | <i>C1ORF25</i> | 0,39 | 3,49E-03 | 0,52 | 6,16E-05 |
| ENSG00000204439 | <i>C6ORF47</i> | 0,94 | 6,61E-05 | 0,96 | 6,18E-05 |
| ENSG00000188010 | <i>MORN2</i> | 1,23 | 1,23E-08 | 0,91 | 6,20E-05 |
| ENSG00000136960 | <i>ENPP2</i> | 1,66 | 1,99E-37 | 0,59 | 6,39E-05 |
| ENSG00000164244 | <i>PRRC1</i> | 0,39 | 2,08E-06 | 0,34 | 6,46E-05 |
| ENSG00000100350 | <i>FOXRED2</i> | 0,61 | 4,52E-12 | 0,37 | 6,53E-05 |
| ENSG00000238164 | <i>RP3-395M20.8</i> | 1,19 | 3,65E-05 | 1,17 | 6,59E-05 |
| ENSG00000228889 | <i>UBAC2-AS1</i> | 0,88 | 7,07E-03 | 1,25 | 6,66E-05 |
| ENSG00000140525 | <i>FANCI</i> | 0,53 | 1,13E-07 | 0,41 | 7,28E-05 |
| ENSG00000102048 | <i>ASB9</i> | 1,24 | 2,43E-12 | 0,76 | 7,47E-05 |
| ENSG00000168393 | <i>DTYMK</i> | 0,32 | 5,78E-03 | 0,44 | 8,19E-05 |
| ENSG00000104889 | <i>RNASEH2A</i> | 0,64 | 2,17E-05 | 0,61 | 8,23E-05 |
| ENSG00000115216 | <i>NRBP1</i> | 0,25 | 7,36E-04 | 0,29 | 8,26E-05 |
| ENSG00000198964 | <i>SGMS1</i> | 0,78 | 2,58E-09 | 0,55 | 8,75E-05 |
| ENSG00000196659 | <i>TTC30B</i> | 0,84 | 1,71E-03 | 1,03 | 9,17E-05 |

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|-----------------|-----------------|------|-----------|------|----------|
| ENSG00000185875 | <i>THNSL1</i> | 0,76 | 7,44E-05 | 0,76 | 9,54E-05 |
| ENSG00000111802 | <i>TTRAP</i> | 0,66 | 3,54E-13 | 0,38 | 9,63E-05 |
| ENSG00000126953 | <i>TIMM8A</i> | 0,55 | 1,05E-04 | 0,56 | 1,02E-04 |
| ENSG00000005889 | <i>ZFX</i> | 0,43 | 1,43E-06 | 0,36 | 1,05E-04 |
| ENSG00000004961 | <i>HCCS</i> | 0,43 | 4,45E-03 | 0,57 | 1,09E-04 |
| ENSG00000145386 | <i>CCNA2</i> | 0,38 | 1,95E-05 | 0,35 | 1,10E-04 |
| ENSG00000135090 | <i>TAOK3</i> | 0,67 | 9,00E-08 | 0,51 | 1,10E-04 |
| ENSG00000110318 | <i>KIAA1377</i> | 1,08 | 2,32E-07 | 0,85 | 1,13E-04 |
| ENSG00000185697 | <i>MYBL1</i> | 1,40 | 9,33E-12 | 0,86 | 1,14E-04 |
| ENSG00000133739 | <i>LRRCC1</i> | 0,76 | 6,43E-05 | 0,75 | 1,14E-04 |
| ENSG00000122481 | <i>RWDD3</i> | 0,39 | 9,29E-03 | 0,56 | 1,15E-04 |
| ENSG00000040275 | <i>CCDC99</i> | 0,36 | 5,66E-03 | 0,48 | 1,17E-04 |
| ENSG00000156299 | <i>TIAM1</i> | 1,83 | 2,57E-09 | 1,26 | 1,22E-04 |
| ENSG00000113161 | <i>HMGCR</i> | 0,24 | 4,88E-03 | 0,32 | 1,27E-04 |
| ENSG00000125354 | <i>SEPT6</i> | 0,36 | 1,21E-03 | 0,42 | 1,28E-04 |
| ENSG00000183549 | <i>ACSM5</i> | 1,12 | 7,12E-10 | 0,75 | 1,31E-04 |
| ENSG00000144357 | <i>UBR3</i> | 0,28 | 1,88E-03 | 0,34 | 1,31E-04 |
| ENSG00000107175 | <i>CREB3</i> | 0,46 | 2,29E-04 | 0,48 | 1,31E-04 |
| ENSG00000187134 | <i>AKR1C1</i> | 1,68 | 5,78E-140 | 0,28 | 1,37E-04 |
| ENSG00000148672 | <i>GLUD1</i> | 0,32 | 3,67E-06 | 0,27 | 1,37E-04 |
| ENSG00000187824 | <i>TMEM220</i> | 0,97 | 4,86E-04 | 1,06 | 1,42E-04 |
| ENSG00000101335 | <i>MYL9</i> | 0,83 | 1,51E-04 | 0,84 | 1,47E-04 |
| ENSG00000119638 | <i>NEK9</i> | 0,66 | 2,75E-11 | 0,40 | 1,48E-04 |
| ENSG00000182093 | <i>WRB</i> | 0,46 | 4,85E-04 | 0,50 | 1,54E-04 |
| ENSG00000165006 | <i>UBAP1</i> | 0,73 | 6,74E-12 | 0,44 | 1,55E-04 |
| ENSG00000196510 | <i>ANAPC7</i> | 0,35 | 3,07E-03 | 0,45 | 1,57E-04 |
| ENSG00000198203 | <i>SULT1C2</i> | 1,80 | 1,14E-23 | 0,77 | 1,57E-04 |
| ENSG00000177485 | <i>ZBTB33</i> | 0,42 | 6,43E-05 | 0,40 | 1,62E-04 |
| ENSG00000197859 | <i>ADAMTSL2</i> | 0,73 | 3,02E-03 | 0,92 | 1,70E-04 |
| ENSG00000143942 | <i>CHAC2</i> | 0,66 | 4,45E-03 | 0,85 | 1,75E-04 |
| ENSG00000120913 | <i>PDLIM2</i> | 0,59 | 9,99E-04 | 0,67 | 1,89E-04 |
| ENSG00000114784 | <i>EIF1B</i> | 0,44 | 4,56E-05 | 0,42 | 1,89E-04 |

Hepatology

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|-----------------|----------------|------|----------|------|----------|
| ENSG00000134326 | <i>CMPK2</i> | 0,90 | 9,05E-03 | 1,25 | 2,10E-04 |
| ENSG00000196922 | <i>ZNF252</i> | 0,83 | 5,00E-11 | 0,50 | 2,26E-04 |
| ENSG00000165646 | <i>SLC18A2</i> | 1,02 | 2,72E-06 | 0,84 | 2,28E-04 |
| ENSG00000135828 | <i>RNASEL</i> | 1,08 | 1,22E-03 | 1,23 | 2,35E-04 |
| ENSG00000110042 | <i>DTX4</i> | 1,64 | 2,77E-17 | 0,80 | 2,37E-04 |
| ENSG00000187546 | <i>TMEM195</i> | 1,14 | 7,29E-04 | 1,24 | 2,42E-04 |
| ENSG00000164830 | <i>OXR1</i> | 0,51 | 1,06E-05 | 0,44 | 2,46E-04 |
| ENSG00000137752 | <i>CASP1</i> | 2,25 | 1,96E-22 | 0,96 | 2,52E-04 |
| ENSG00000126016 | <i>AMOT</i> | 1,24 | 4,19E-06 | 1,03 | 2,54E-04 |
| ENSG00000130717 | <i>UCK1</i> | 1,17 | 1,34E-20 | 0,51 | 2,56E-04 |
| ENSG00000100347 | <i>SAMM50</i> | 0,45 | 1,48E-05 | 0,39 | 2,66E-04 |
| ENSG00000172070 | <i>SRXN1</i> | 1,20 | 1,46E-16 | 0,59 | 2,74E-04 |
| ENSG00000163382 | <i>APOA1BP</i> | 0,38 | 2,05E-03 | 0,45 | 2,76E-04 |
| ENSG00000134398 | <i>ERN2</i> | 1,14 | 1,45E-05 | 0,99 | 2,82E-04 |
| ENSG00000008311 | <i>AASS</i> | 0,72 | 2,63E-07 | 0,54 | 2,86E-04 |
| ENSG00000185813 | <i>PCYT2</i> | 0,44 | 8,40E-09 | 0,30 | 2,86E-04 |
| ENSG00000078487 | <i>ZCWPW1</i> | 0,91 | 1,88E-03 | 1,06 | 2,89E-04 |
| ENSG00000104549 | <i>SQLE</i> | 0,26 | 4,95E-04 | 0,28 | 2,91E-04 |
| ENSG00000158865 | <i>SLC5A11</i> | 2,49 | 1,64E-20 | 1,09 | 3,00E-04 |
| ENSG00000114446 | <i>IFT57</i> | 0,77 | 3,06E-04 | 0,78 | 3,07E-04 |
| ENSG00000143815 | <i>LBR</i> | 0,38 | 4,87E-06 | 0,31 | 3,09E-04 |
| ENSG00000132854 | <i>KANK4</i> | 0,75 | 8,43E-13 | 0,42 | 3,11E-04 |
| ENSG00000197043 | <i>ANXA6</i> | 0,66 | 8,12E-23 | 0,27 | 3,16E-04 |
| ENSG00000114686 | <i>MRPL3</i> | 0,38 | 3,62E-05 | 0,34 | 3,28E-04 |
| ENSG00000137563 | <i>GGH</i> | 0,51 | 3,68E-07 | 0,38 | 3,33E-04 |
| ENSG00000203797 | <i>DDO</i> | 0,90 | 1,30E-06 | 0,70 | 3,45E-04 |
| ENSG00000099991 | <i>CABIN1</i> | 0,71 | 2,85E-15 | 0,35 | 3,74E-04 |
| ENSG00000049245 | <i>VAMP3</i> | 0,38 | 6,86E-06 | 0,31 | 4,13E-04 |
| ENSG00000124164 | <i>VAPB</i> | 0,49 | 3,96E-10 | 0,29 | 4,24E-04 |
| ENSG00000082438 | <i>COBLL1</i> | 0,69 | 1,84E-20 | 0,29 | 4,37E-04 |
| ENSG00000023697 | <i>DERA</i> | 0,40 | 1,37E-03 | 0,44 | 4,41E-04 |
| ENSG00000143653 | <i>SCCPDH</i> | 0,35 | 4,75E-04 | 0,36 | 4,53E-04 |

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| ENSG00000159348 | <i>CYB5R1</i> | 0,67 | 9,39E-05 | 0,62 | 4,59E-04 |
| ENSG00000184517 | <i>ZFP1</i> | 0,61 | 9,65E-04 | 0,66 | 4,60E-04 |
| ENSG00000258821 | / | 1,47 | 1,67E-06 | 1,13 | 4,61E-04 |
| ENSG00000178966 | <i>RMI1</i> | 0,65 | 1,04E-05 | 0,53 | 4,84E-04 |
| ENSG00000100652 | <i>SLC10A1</i> | 1,73 | 6,51E-08 | 1,18 | 4,89E-04 |
| ENSG00000168002 | <i>POLR2G</i> | 0,36 | 8,15E-03 | 0,47 | 5,02E-04 |
| ENSG00000148225 | <i>WDR31</i> | 1,14 | 1,04E-04 | 1,05 | 5,82E-04 |
| ENSG00000100664 | <i>EIF5</i> | 0,61 | 1,63E-19 | 0,26 | 5,86E-04 |
| ENSG00000099260 | <i>PALMD</i> | 0,77 | 1,75E-13 | 0,39 | 6,06E-04 |
| ENSG00000156587 | <i>UBE2L6</i> | 0,91 | 2,70E-11 | 0,51 | 6,08E-04 |
| ENSG00000002016 | <i>RAD52</i> | 0,48 | 7,31E-03 | 0,60 | 6,26E-04 |
| ENSG00000205765 | <i>C5ORF51</i> | 0,39 | 5,77E-04 | 0,39 | 6,38E-04 |
| ENSG00000108395 | <i>TRIM37</i> | 0,45 | 1,52E-05 | 0,37 | 6,55E-04 |
| ENSG00000129562 | <i>DAD1</i> | 0,25 | 3,65E-03 | 0,29 | 6,73E-04 |
| ENSG00000095321 | <i>CRAT</i> | 0,44 | 6,39E-05 | 0,38 | 7,31E-04 |
| ENSG00000123080 | <i>CDKN2C</i> | 0,77 | 3,91E-05 | 0,66 | 7,39E-04 |
| ENSG00000182165 | <i>TP53TG1</i> | 0,58 | 2,50E-03 | 0,65 | 7,51E-04 |
| ENSG00000205873 | / | 0,82 | 7,19E-06 | 0,65 | 7,63E-04 |
| ENSG00000129596 | <i>CDO1</i> | 1,34 | 3,76E-14 | 0,66 | 7,87E-04 |
| ENSG00000182511 | <i>FES</i> | 0,69 | 2,46E-04 | 0,65 | 7,92E-04 |
| ENSG00000008869 | <i>HEATR5B</i> | 0,53 | 1,49E-06 | 0,39 | 7,99E-04 |
| ENSG00000117450 | <i>PRDX1</i> | 0,55 | 8,01E-22 | 0,21 | 8,01E-04 |
| ENSG00000156253 | <i>RWDD2B</i> | 0,55 | 1,58E-04 | 0,51 | 8,21E-04 |
| ENSG00000139405 | <i>C12ORF52</i> | 0,99 | 3,23E-12 | 0,52 | 8,29E-04 |
| ENSG00000149591 | <i>TAGLN</i> | 1,06 | 1,72E-09 | 0,64 | 8,31E-04 |
| ENSG00000171307 | <i>ZDHHC16</i> | 0,39 | 8,30E-04 | 0,40 | 8,51E-04 |
| ENSG00000183624 | <i>C3ORF37</i> | 0,52 | 2,36E-05 | 0,43 | 8,53E-04 |
| ENSG00000182179 | <i>UBA7</i> | 0,91 | 4,96E-08 | 0,60 | 8,60E-04 |
| ENSG00000173744 | <i>AGFG1</i> | 0,27 | 7,48E-04 | 0,28 | 8,60E-04 |
| ENSG00000113368 | <i>LMNB1</i> | 0,29 | 2,34E-03 | 0,32 | 8,62E-04 |
| ENSG00000184227 | <i>ACOT1</i> | 0,39 | 8,62E-03 | 0,49 | 8,65E-04 |
| ENSG00000140463 | <i>BBS4</i> | 0,63 | 2,44E-04 | 0,59 | 8,78E-04 |

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| ENSG00000178150 | <i>ZNF114</i> | 1,38 | 5,96E-11 | 0,77 | 8,81E-04 |
| ENSG00000188827 | <i>BTBD12</i> | 1,38 | 1,01E-15 | 0,64 | 8,87E-04 |
| ENSG00000119946 | <i>CNNM1</i> | 0,46 | 8,04E-03 | 0,56 | 8,92E-04 |
| ENSG00000130005 | <i>GAMT</i> | 0,83 | 4,14E-21 | 0,33 | 9,22E-04 |
| ENSG00000215039 | <i>CD27-AS1</i> | 0,81 | 3,60E-03 | 0,92 | 9,38E-04 |
| ENSG00000138315 | <i>OIT3</i> | 1,02 | 4,26E-07 | 0,71 | 9,50E-04 |
| ENSG00000112210 | <i>RAB23</i> | 0,50 | 4,39E-04 | 0,48 | 1,08E-03 |
| ENSG00000164308 | <i>ERAP2</i> | 0,88 | 2,84E-11 | 0,48 | 1,09E-03 |
| ENSG00000138794 | <i>CASP6</i> | 0,76 | 7,91E-06 | 0,59 | 1,11E-03 |
| ENSG00000127084 | <i>FGD3</i> | 0,98 | 9,32E-04 | 0,98 | 1,16E-03 |
| ENSG00000137204 | <i>SLC22A7</i> | 3,00 | 5,25E-78 | 0,63 | 1,16E-03 |
| ENSG00000164305 | <i>CASP3</i> | 0,36 | 1,74E-04 | 0,32 | 1,18E-03 |
| ENSG00000124357 | <i>NAGK</i> | 0,75 | 2,67E-08 | 0,47 | 1,23E-03 |
| ENSG00000169894 | <i>LOC100134216</i> | 1,03 | 2,30E-03 | 1,10 | 1,30E-03 |
| ENSG00000143036 | <i>SLC44A3</i> | 0,86 | 1,89E-04 | 0,77 | 1,30E-03 |
| ENSG00000137575 | <i>SDCBP</i> | 0,35 | 2,85E-04 | 0,32 | 1,31E-03 |
| ENSG00000154265 | <i>ABCA5</i> | 1,47 | 5,68E-27 | 0,50 | 1,31E-03 |
| ENSG00000176542 | <i>KIAA2018</i> | 0,37 | 4,70E-03 | 0,42 | 1,32E-03 |
| ENSG00000137133 | <i>HINT2</i> | 0,60 | 8,90E-05 | 0,51 | 1,33E-03 |
| ENSG00000162460 | <i>TMEM82</i> | 1,60 | 2,95E-07 | 1,07 | 1,36E-03 |
| ENSG00000204147 | <i>ASAH2B</i> | 0,51 | 5,78E-03 | 0,59 | 1,43E-03 |
| ENSG00000145246 | <i>ATP10D</i> | 1,31 | 5,36E-09 | 0,78 | 1,49E-03 |
| ENSG00000123739 | <i>PLA2G12A</i> | 0,55 | 2,52E-04 | 0,49 | 1,55E-03 |
| ENSG00000116120 | <i>FARSB</i> | 0,29 | 2,97E-03 | 0,31 | 1,58E-03 |
| ENSG00000128039 | <i>SRD5A3</i> | 0,67 | 4,07E-04 | 0,62 | 1,60E-03 |
| ENSG00000165060 | <i>FXN</i> | 0,68 | 1,11E-06 | 0,47 | 1,66E-03 |
| ENSG00000160703 | <i>NLRX1</i> | 0,60 | 8,54E-08 | 0,38 | 1,67E-03 |
| ENSG00000135637 | <i>CCDC142</i> | 1,26 | 9,01E-20 | 0,50 | 1,67E-03 |
| ENSG00000160172 | <i>LOC100125556</i> | 0,90 | 1,19E-03 | 0,89 | 1,70E-03 |
| ENSG00000137720 | <i>C11ORF1</i> | 0,71 | 3,53E-04 | 0,65 | 1,70E-03 |
| ENSG00000140526 | <i>ABHD2</i> | 0,50 | 3,46E-11 | 0,26 | 1,71E-03 |
| ENSG00000164252 | <i>AGGF1</i> | 0,39 | 6,97E-04 | 0,37 | 1,72E-03 |

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|-----------------|---------------------|------|----------|------|----------|
| ENSG00000184898 | <i>RBM43</i> | 1,12 | 2,65E-05 | 0,88 | 1,76E-03 |
| ENSG00000204569 | <i>PPP1R10</i> | 0,34 | 1,39E-03 | 0,34 | 1,78E-03 |
| ENSG00000104870 | <i>FCGRT</i> | 0,59 | 9,51E-14 | 0,27 | 1,80E-03 |
| ENSG00000162972 | <i>C2ORF47</i> | 0,44 | 1,07E-03 | 0,43 | 1,86E-03 |
| ENSG00000164007 | <i>CLDN19</i> | 1,16 | 2,45E-10 | 0,63 | 1,88E-03 |
| ENSG00000150712 | <i>MTMR12</i> | 0,40 | 1,50E-06 | 0,28 | 1,89E-03 |
| ENSG00000206337 | <i>HCP5</i> | 1,13 | 3,08E-05 | 0,89 | 1,92E-03 |
| ENSG00000055957 | <i>ITIH1</i> | 0,73 | 5,43E-06 | 0,53 | 2,03E-03 |
| ENSG00000111875 | <i>ASF1A</i> | 0,48 | 1,12E-05 | 0,36 | 2,05E-03 |
| ENSG00000169604 | <i>ANTXR1</i> | 0,60 | 1,50E-08 | 0,36 | 2,07E-03 |
| ENSG00000112297 | <i>AIM1</i> | 0,54 | 2,64E-11 | 0,28 | 2,08E-03 |
| ENSG00000073921 | <i>PICALM</i> | 0,52 | 3,91E-14 | 0,23 | 2,09E-03 |
| ENSG00000120696 | <i>KBTBD7</i> | 0,63 | 3,22E-05 | 0,49 | 2,09E-03 |
| ENSG00000206527 | <i>PTPLB</i> | 0,56 | 6,16E-12 | 0,27 | 2,11E-03 |
| ENSG00000198830 | <i>HMG2</i> | 0,31 | 3,63E-04 | 0,28 | 2,15E-03 |
| ENSG00000116752 | <i>BCAS2</i> | 0,41 | 1,74E-03 | 0,41 | 2,16E-03 |
| ENSG00000134057 | <i>CCNB1</i> | 0,29 | 5,79E-04 | 0,27 | 2,18E-03 |
| ENSG00000130349 | <i>C6ORF203</i> | 0,60 | 9,97E-03 | 0,70 | 2,25E-03 |
| ENSG00000185339 | <i>TCN2</i> | 2,12 | 1,04E-11 | 1,05 | 2,25E-03 |
| ENSG00000131504 | <i>DIAPH1</i> | 0,34 | 6,80E-07 | 0,23 | 2,29E-03 |
| ENSG00000143545 | <i>LOC100131294</i> | 0,44 | 3,44E-03 | 0,46 | 2,30E-03 |
| ENSG00000112110 | <i>MRPL18</i> | 0,35 | 9,91E-04 | 0,34 | 2,36E-03 |
| ENSG00000254004 | <i>ZNF260</i> | 0,58 | 7,21E-05 | 0,47 | 2,38E-03 |
| ENSG00000037042 | <i>TUBG2</i> | 0,54 | 1,98E-04 | 0,46 | 2,41E-03 |
| ENSG00000112983 | <i>BRD8</i> | 0,31 | 9,97E-04 | 0,29 | 2,43E-03 |
| ENSG00000204852 | <i>TCTN1</i> | 0,59 | 5,53E-03 | 0,65 | 2,46E-03 |
| ENSG00000110013 | <i>SIAE</i> | 0,56 | 1,83E-05 | 0,42 | 2,49E-03 |
| ENSG00000146477 | <i>SLC22A3</i> | 0,46 | 1,05E-05 | 0,34 | 2,51E-03 |
| ENSG00000177951 | <i>BET1L</i> | 0,33 | 8,10E-03 | 0,38 | 2,52E-03 |
| ENSG00000137700 | <i>SLC37A4</i> | 0,43 | 7,91E-06 | 0,31 | 2,53E-03 |
| ENSG00000164040 | <i>PGRMC2</i> | 0,27 | 2,38E-03 | 0,28 | 2,54E-03 |
| ENSG00000213366 | <i>GSTM2</i> | 1,16 | 9,05E-07 | 0,77 | 2,58E-03 |

Hepatology

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|-----------------|-----------------|------|----------|------|----------|
| ENSG00000175279 | <i>APITD1</i> | 0,94 | 3,48E-03 | 0,98 | 2,58E-03 |
| ENSG00000109099 | <i>PMP22</i> | 1,03 | 1,65E-09 | 0,57 | 2,59E-03 |
| ENSG00000156136 | <i>DCK</i> | 0,39 | 6,84E-03 | 0,44 | 2,61E-03 |
| ENSG00000108846 | <i>ABCC3</i> | 1,08 | 9,66E-28 | 0,34 | 2,63E-03 |
| ENSG00000111445 | <i>RFC5</i> | 0,77 | 3,95E-08 | 0,46 | 2,64E-03 |
| ENSG00000149476 | <i>DAK</i> | 0,37 | 2,75E-07 | 0,24 | 2,75E-03 |
| ENSG00000177879 | <i>AP3S1</i> | 0,33 | 9,79E-04 | 0,31 | 2,78E-03 |
| ENSG00000177000 | <i>MTHFR</i> | 0,97 | 4,10E-09 | 0,54 | 2,88E-03 |
| ENSG00000125827 | <i>TMX4</i> | 0,49 | 1,03E-07 | 0,30 | 3,09E-03 |
| ENSG00000166801 | <i>FAM111A</i> | 1,05 | 1,59E-10 | 0,54 | 3,15E-03 |
| ENSG00000197386 | <i>HTT</i> | 0,73 | 3,15E-16 | 0,30 | 3,20E-03 |
| ENSG00000136870 | <i>ZNF189</i> | 0,32 | 6,25E-04 | 0,28 | 3,21E-03 |
| ENSG00000146476 | <i>C6ORF211</i> | 0,29 | 7,75E-03 | 0,33 | 3,23E-03 |
| ENSG00000138075 | <i>ABCG5</i> | 0,83 | 2,89E-11 | 0,41 | 3,28E-03 |
| ENSG00000100612 | <i>DHRS7</i> | 0,46 | 7,81E-04 | 0,41 | 3,36E-03 |
| ENSG00000146904 | <i>EPHA1</i> | 1,81 | 6,10E-25 | 0,60 | 3,40E-03 |
| ENSG00000140368 | <i>PSTPIP1</i> | 0,97 | 9,51E-04 | 0,89 | 3,44E-03 |
| ENSG00000166913 | <i>YWHAB</i> | 0,27 | 2,11E-04 | 0,22 | 3,61E-03 |
| ENSG00000186635 | <i>ARAP1</i> | 0,32 | 3,60E-04 | 0,27 | 3,67E-03 |
| ENSG00000121057 | <i>AKAP1</i> | 0,74 | 1,49E-20 | 0,26 | 3,75E-03 |
| ENSG00000116954 | <i>RRAGC</i> | 1,13 | 1,58E-16 | 0,45 | 3,80E-03 |
| ENSG00000118418 | <i>HMGN3</i> | 0,60 | 2,30E-09 | 0,32 | 3,89E-03 |
| ENSG00000140465 | <i>CYP1A1</i> | 0,76 | 5,65E-04 | 0,66 | 3,95E-03 |
| ENSG00000167315 | <i>ACAA2</i> | 0,35 | 1,80E-04 | 0,28 | 3,97E-03 |
| ENSG00000072415 | <i>MPP5</i> | 0,40 | 2,92E-04 | 0,33 | 3,98E-03 |
| ENSG00000177125 | <i>ZBTB34</i> | 0,52 | 7,00E-04 | 0,46 | 4,04E-03 |
| ENSG00000125355 | <i>FAM70A</i> | 1,17 | 4,48E-04 | 1,00 | 4,04E-03 |
| ENSG00000166938 | <i>DIS3L</i> | 0,55 | 4,42E-08 | 0,32 | 4,05E-03 |
| ENSG00000115685 | <i>PPP1R7</i> | 0,59 | 2,89E-08 | 0,34 | 4,05E-03 |
| ENSG00000169715 | <i>MT1E</i> | 1,15 | 4,15E-08 | 0,65 | 4,12E-03 |
| ENSG00000113369 | <i>ARRDC3</i> | 0,39 | 2,73E-03 | 0,39 | 4,14E-03 |
| ENSG00000000003 | <i>TSPAN6</i> | 0,33 | 4,35E-05 | 0,24 | 4,16E-03 |

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|-----------------|----------------------|------|----------|------|----------|
| ENSG00000136810 | <i>TXN</i> | 0,32 | 8,02E-05 | 0,25 | 4,31E-03 |
| ENSG00000255121 | <i>RP11-110I1.12</i> | 0,79 | 5,10E-03 | 0,82 | 4,34E-03 |
| ENSG00000178425 | <i>NT5DC1</i> | 0,36 | 1,40E-03 | 0,33 | 4,36E-03 |
| ENSG00000108424 | <i>KPNB1</i> | 0,18 | 5,81E-03 | 0,19 | 4,37E-03 |
| ENSG00000196704 | <i>AMZ2</i> | 0,39 | 1,19E-05 | 0,27 | 4,38E-03 |
| ENSG00000129514 | <i>FOXA1</i> | 0,59 | 6,88E-10 | 0,30 | 4,40E-03 |
| ENSG00000129480 | <i>C14ORF126</i> | 0,42 | 2,95E-04 | 0,34 | 4,41E-03 |
| ENSG00000005020 | <i>SKAP2</i> | 0,89 | 8,92E-12 | 0,42 | 4,44E-03 |
| ENSG00000109181 | <i>UGT2B10</i> | 0,40 | 3,21E-04 | 0,33 | 4,62E-03 |
| ENSG00000102230 | <i>PCYT1B</i> | 0,81 | 1,44E-06 | 0,52 | 4,71E-03 |
| ENSG00000171067 | <i>C11ORF24</i> | 0,37 | 3,16E-05 | 0,27 | 4,85E-03 |
| ENSG00000111671 | <i>SPSB2</i> | 0,83 | 1,89E-03 | 0,77 | 5,02E-03 |
| ENSG00000119185 | <i>ITGB1BP1</i> | 0,50 | 2,66E-06 | 0,33 | 5,03E-03 |
| ENSG00000174799 | <i>CEP135</i> | 0,58 | 2,35E-03 | 0,54 | 5,17E-03 |
| ENSG00000154305 | <i>MIA3</i> | 0,26 | 5,48E-03 | 0,27 | 5,25E-03 |
| ENSG00000149658 | <i>YTHDF1</i> | 0,50 | 3,23E-09 | 0,26 | 5,30E-03 |
| ENSG00000139684 | <i>ESD</i> | 0,33 | 1,29E-03 | 0,29 | 5,35E-03 |
| ENSG00000132744 | <i>ACY3</i> | 1,86 | 2,29E-19 | 0,67 | 5,37E-03 |
| ENSG00000112312 | <i>GMNN</i> | 0,32 | 7,33E-04 | 0,28 | 5,41E-03 |
| ENSG00000181894 | <i>ZNF329</i> | 0,51 | 8,38E-03 | 0,54 | 5,41E-03 |
| ENSG00000196533 | <i>C1ORF186</i> | 0,99 | 6,60E-09 | 0,53 | 5,47E-03 |
| ENSG00000183578 | <i>TNFAIP8L3</i> | 0,91 | 3,87E-04 | 0,74 | 5,68E-03 |
| ENSG00000159314 | <i>SH3D20</i> | 0,58 | 5,37E-05 | 0,42 | 5,69E-03 |
| ENSG00000114779 | <i>ABHD14B</i> | 0,65 | 5,95E-10 | 0,32 | 5,69E-03 |
| ENSG00000100888 | <i>CHD8</i> | 0,26 | 5,96E-04 | 0,22 | 5,87E-03 |
| ENSG00000108515 | <i>ENO3</i> | 1,08 | 5,49E-15 | 0,44 | 6,04E-03 |
| ENSG00000168938 | <i>PPIC</i> | 0,69 | 1,03E-04 | 0,52 | 6,09E-03 |
| ENSG00000076555 | <i>ACACB</i> | 0,94 | 1,34E-12 | 0,41 | 6,14E-03 |
| ENSG00000117461 | <i>PIK3R3</i> | 1,36 | 1,05E-15 | 0,54 | 6,17E-03 |
| ENSG00000179163 | <i>FUCA1</i> | 0,60 | 7,33E-08 | 0,33 | 6,45E-03 |
| ENSG00000255277 | <i>ABCC6P2</i> | 0,79 | 3,65E-04 | 0,64 | 6,50E-03 |
| ENSG00000214530 | <i>STARD10</i> | 0,78 | 6,28E-25 | 0,24 | 6,51E-03 |

Hepatology

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|-----------------|-----------------|------|----------|------|----------|
| ENSG00000075399 | <i>C16ORF7</i> | 1,02 | 2,46E-06 | 0,64 | 6,76E-03 |
| ENSG00000230356 | <i>NCAPD2P1</i> | 1,03 | 9,31E-08 | 0,58 | 6,77E-03 |
| ENSG00000183161 | <i>FANCF</i> | 0,54 | 2,18E-03 | 0,49 | 6,94E-03 |
| ENSG00000106399 | <i>RPA3</i> | 0,44 | 1,43E-03 | 0,39 | 7,05E-03 |
| ENSG00000063322 | <i>MED29</i> | 0,66 | 5,78E-10 | 0,32 | 7,06E-03 |
| ENSG00000121691 | <i>CAT</i> | 0,26 | 1,02E-03 | 0,22 | 7,11E-03 |
| ENSG00000128534 | <i>NAA38</i> | 0,75 | 2,08E-07 | 0,43 | 7,17E-03 |
| ENSG00000111247 | <i>RAD51AP1</i> | 0,47 | 3,67E-04 | 0,37 | 7,31E-03 |
| ENSG00000167528 | <i>ZNF641</i> | 0,93 | 1,37E-07 | 0,53 | 7,40E-03 |
| ENSG00000006634 | <i>DBF4</i> | 0,58 | 4,27E-06 | 0,37 | 7,43E-03 |
| ENSG00000173992 | <i>CCS</i> | 0,50 | 1,58E-04 | 0,37 | 7,55E-03 |
| ENSG00000184481 | <i>FOXO4</i> | 0,79 | 1,40E-05 | 0,53 | 7,68E-03 |
| ENSG00000145022 | <i>TCTA</i> | 0,73 | 7,69E-07 | 0,43 | 8,06E-03 |
| ENSG00000081177 | <i>EXD2</i> | 0,41 | 5,17E-03 | 0,40 | 8,22E-03 |
| ENSG00000170264 | <i>FAM161A</i> | 0,60 | 6,23E-03 | 0,59 | 8,25E-03 |
| ENSG00000105968 | <i>H2AFV</i> | 0,49 | 1,23E-09 | 0,24 | 8,30E-03 |
| ENSG00000143633 | <i>C10RF131</i> | 0,63 | 1,03E-05 | 0,41 | 8,35E-03 |
| ENSG00000114999 | <i>TTL</i> | 0,27 | 2,87E-03 | 0,24 | 8,52E-03 |
| ENSG00000089177 | <i>KIF16B</i> | 0,48 | 3,77E-05 | 0,33 | 8,61E-03 |
| ENSG00000137449 | <i>CPEB2</i> | 1,17 | 8,46E-09 | 0,60 | 8,65E-03 |
| ENSG00000159228 | <i>CBR1</i> | 0,57 | 5,75E-05 | 0,40 | 8,73E-03 |
| ENSG00000139428 | <i>MMAB</i> | 0,47 | 2,50E-04 | 0,35 | 8,82E-03 |
| ENSG00000109846 | <i>CRYAB</i> | 0,92 | 6,70E-03 | 0,90 | 8,95E-03 |
| ENSG00000143416 | <i>SELENBP1</i> | 0,95 | 9,57E-13 | 0,40 | 9,00E-03 |
| ENSG00000197763 | <i>TXNRD3</i> | 0,59 | 5,42E-04 | 0,47 | 9,11E-03 |
| ENSG00000163900 | <i>TMEM41A</i> | 1,14 | 2,70E-35 | 0,28 | 9,12E-03 |
| ENSG00000130234 | <i>ACE2</i> | 1,18 | 6,77E-06 | 0,75 | 9,14E-03 |
| ENSG00000123374 | <i>CDK2</i> | 0,48 | 2,18E-03 | 0,42 | 9,28E-03 |
| ENSG00000139998 | <i>RAB15</i> | 0,64 | 3,37E-05 | 0,43 | 9,73E-03 |

S7. DE genes between KD1 vs Mock and KD2 vs mock in Hep3B after Inc18q22.2 knockdown. 2063 genes were overlapping between KD1 vs Mock and KD2 vs Mock from which 1724 were in the same direction (this table) and 339 in opposite direction. All genes are significant at FDR<0.01.

| Ensembl Gene ID | Official gene name | KD1 vs Mock (Hep3B) | | KD2 vs Mock (Hep3B) | |
|-----------------|--------------------|---------------------|----------|---------------------|-----------|
| | | Log2 Fold Change | FDR | Log2 Fold Change | FDR |
| ENSG00000189403 | <i>HMGB1</i> | -0,26 | 6,59E-04 | -2,28 | 9,09E-204 |
| ENSG00000118523 | <i>CTGF</i> | -1,46 | 3,05E-94 | -2,13 | 3,43E-194 |
| ENSG00000103257 | <i>SLC7A5</i> | -1,03 | 7,06E-43 | -2,14 | 2,47E-174 |
| ENSG00000137801 | <i>THBS1</i> | -1,62 | 3,66E-96 | -1,94 | 1,51E-136 |
| ENSG00000146670 | <i>CDCA5</i> | -0,46 | 2,85E-08 | -2,04 | 1,96E-133 |
| ENSG00000101255 | <i>TRIB3</i> | -0,27 | 8,91E-03 | -1,97 | 6,28E-91 |
| ENSG00000176619 | <i>LMNB2</i> | -0,38 | 7,59E-05 | -1,74 | 4,41E-83 |
| ENSG00000147403 | <i>RPL10</i> | -0,31 | 5,49E-05 | -1,35 | 1,86E-75 |
| ENSG00000106636 | <i>YKT6</i> | -0,68 | 7,44E-15 | -1,61 | 8,50E-75 |
| ENSG00000181789 | <i>COPG</i> | -0,47 | 4,50E-09 | -1,43 | 3,74E-73 |
| ENSG00000119280 | <i>C1ORF198</i> | -0,45 | 5,36E-07 | -1,59 | 4,40E-70 |
| ENSG00000136238 | <i>RAC1</i> | -0,20 | 3,48E-03 | -1,13 | 8,66E-69 |
| ENSG00000124766 | <i>SOX4</i> | -0,70 | 3,82E-23 | -1,22 | 6,24E-68 |
| ENSG00000103591 | <i>AAGAB</i> | -0,33 | 9,74E-04 | -1,68 | 1,33E-66 |
| ENSG00000125817 | <i>CENPB</i> | -0,75 | 1,12E-10 | -2,03 | 9,04E-64 |
| ENSG00000171314 | <i>PGAM1</i> | -1,22 | 1,59E-26 | -1,96 | 9,40E-64 |
| ENSG00000166900 | <i>STX3</i> | -0,73 | 3,16E-18 | -1,41 | 1,12E-63 |
| ENSG00000108861 | <i>DUSP3</i> | -0,30 | 1,00E-04 | -1,24 | 3,03E-63 |
| ENSG00000116584 | <i>ARHGEF2</i> | -1,39 | 6,24E-44 | -1,68 | 3,26E-63 |
| ENSG00000101346 | <i>POFUT1</i> | -0,86 | 1,08E-20 | -1,53 | 6,90E-62 |
| ENSG00000011009 | <i>LYPLA2</i> | -1,44 | 1,06E-36 | -1,89 | 1,16E-60 |
| ENSG00000171552 | <i>BCL2L1</i> | -0,41 | 9,72E-09 | -1,12 | 6,42E-59 |
| ENSG00000070614 | <i>NDST1</i> | -0,47 | 2,05E-11 | -1,10 | 2,71E-58 |
| ENSG00000065060 | <i>UHRF1BP1</i> | -0,42 | 4,28E-05 | -1,57 | 2,77E-57 |
| ENSG00000148411 | <i>NACC2</i> | -0,35 | 5,36E-04 | -1,54 | 3,84E-54 |
| ENSG00000097007 | <i>ABL1</i> | -0,29 | 2,32E-03 | -1,38 | 8,66E-54 |
| ENSG00000206053 | <i>HN1L</i> | -1,09 | 1,29E-48 | -1,14 | 1,42E-53 |

Hepatology

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000175215 | <i>CTDSP2</i> | -0,42 | 9,57E-07 | -1,27 | 2,25E-52 |
| ENSG00000205208 | <i>C4ORF46</i> | -0,63 | 2,13E-05 | -2,38 | 1,69E-51 |
| ENSG00000147526 | <i>TACC1</i> | -0,85 | 3,66E-21 | -1,35 | 1,42E-50 |
| ENSG00000049449 | <i>RCN1</i> | -0,84 | 7,61E-22 | -1,29 | 4,85E-49 |
| ENSG00000167470 | <i>MIDN</i> | -1,45 | 8,64E-36 | -1,70 | 1,27E-48 |
| ENSG00000171004 | <i>HS6ST2</i> | -0,35 | 1,02E-03 | -1,44 | 5,19E-47 |
| ENSG00000162889 | <i>MAPKAPK2</i> | -1,19 | 2,63E-33 | -1,42 | 1,30E-46 |
| ENSG00000090889 | <i>KIF4A</i> | -0,79 | 2,09E-16 | -1,37 | 1,30E-46 |
| ENSG00000167658 | <i>EEF2</i> | -0,33 | 3,82E-08 | -0,83 | 1,50E-46 |
| ENSG00000147869 | <i>CER1</i> | -2,51 | 3,55E-46 | -2,46 | 1,84E-46 |
| ENSG00000169710 | <i>FASN</i> | -0,63 | 4,59E-15 | -1,11 | 4,13E-45 |
| ENSG00000166851 | <i>PLK1</i> | -0,42 | 4,02E-07 | -1,10 | 2,65E-43 |
| ENSG00000147324 | <i>MFHAS1</i> | -1,07 | 4,03E-20 | -1,61 | 1,39E-42 |
| ENSG00000064666 | <i>CNN2</i> | -0,30 | 1,06E-03 | -1,16 | 1,07E-41 |
| ENSG00000077232 | <i>DNAJC10</i> | -0,32 | 4,23E-04 | -1,13 | 4,65E-41 |
| ENSG00000003989 | <i>SLC7A2</i> | -1,03 | 6,32E-24 | -1,36 | 5,10E-41 |
| ENSG00000198826 | <i>ARHGAP11A</i> | -0,46 | 1,03E-05 | -1,36 | 1,30E-40 |
| ENSG00000110395 | <i>CBL</i> | -0,49 | 1,54E-05 | -1,47 | 1,38E-40 |
| ENSG00000185624 | <i>P4HB</i> | -0,79 | 5,28E-29 | -0,93 | 2,07E-39 |
| ENSG00000183098 | <i>GPC6</i> | -0,59 | 1,86E-10 | -1,21 | 2,27E-39 |
| ENSG00000099942 | <i>CRKL</i> | -0,78 | 6,59E-22 | -1,05 | 1,30E-38 |
| ENSG00000138829 | <i>FBN2</i> | -1,80 | 1,09E-43 | -1,61 | 3,29E-37 |
| ENSG00000175826 | <i>DULLARD</i> | -1,69 | 1,31E-29 | -1,90 | 5,08E-37 |
| ENSG00000173706 | <i>HEG1</i> | -0,68 | 9,05E-15 | -1,10 | 8,30E-37 |
| ENSG00000142178 | <i>SIK1</i> | -1,15 | 1,73E-30 | -1,25 | 2,21E-36 |
| ENSG00000143384 | <i>MCL1</i> | -1,50 | 1,35E-98 | -0,89 | 3,62E-36 |
| ENSG00000119383 | <i>PPP2R4</i> | -0,94 | 8,94E-26 | -1,12 | 5,21E-36 |
| ENSG00000163545 | <i>NUAK2</i> | -1,62 | 2,13E-52 | -1,30 | 6,91E-36 |
| ENSG00000135763 | <i>URB2</i> | -0,72 | 4,39E-12 | -1,28 | 1,46E-35 |
| ENSG00000120802 | <i>TMPO</i> | -0,90 | 9,97E-31 | -0,95 | 8,64E-35 |
| ENSG00000182963 | <i>GJC1</i> | -0,63 | 2,75E-12 | -1,09 | 1,91E-34 |
| ENSG00000186716 | <i>BCR</i> | -0,30 | 1,51E-03 | -1,09 | 2,71E-34 |

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| ENSG00000160208 | <i>RRP1B</i> | -0,52 | 6,25E-09 | -1,06 | 5,08E-34 |
| ENSG00000035928 | <i>RFC1</i> | -0,60 | 8,25E-15 | -0,93 | 5,81E-34 |
| ENSG00000204516 | <i>MICB</i> | -1,08 | 4,53E-16 | -1,61 | 8,28E-34 |
| ENSG00000164880 | <i>INTS1</i> | -0,32 | 6,65E-05 | -0,90 | 6,32E-33 |
| ENSG00000100364 | <i>C22ORF9</i> | -0,36 | 1,27E-03 | -1,27 | 5,85E-32 |
| ENSG00000175727 | <i>MLXIP</i> | -0,41 | 2,91E-04 | -1,29 | 1,72E-31 |
| ENSG00000155096 | <i>AZIN1</i> | -0,38 | 1,25E-06 | -0,88 | 7,21E-31 |
| ENSG00000147677 | <i>EIF3H</i> | -0,35 | 5,01E-06 | -0,86 | 7,40E-31 |
| ENSG00000100889 | <i>PCK2</i> | -0,80 | 2,34E-10 | -1,43 | 5,65E-30 |
| ENSG00000025772 | <i>TOMM34</i> | -1,66 | 2,20E-38 | -1,41 | 1,07E-29 |
| ENSG00000143515 | <i>ATP8B2</i> | -0,26 | 2,31E-03 | -0,91 | 1,25E-29 |
| ENSG00000115561 | <i>RNF103</i> | -0,33 | 5,64E-04 | -1,03 | 1,29E-29 |
| ENSG00000068078 | <i>FGFR3</i> | -0,32 | 2,85E-04 | -0,94 | 2,44E-29 |
| ENSG00000124641 | <i>MED20</i> | -0,60 | 4,33E-07 | -1,32 | 9,82E-29 |
| ENSG00000187514 | <i>LOC441454</i> | -0,61 | 3,83E-11 | -1,00 | 1,94E-28 |
| ENSG00000139514 | <i>SLC7A1</i> | -1,27 | 2,52E-39 | -1,06 | 2,57E-28 |
| ENSG00000139269 | <i>INHBE</i> | -0,70 | 1,18E-13 | -1,03 | 4,24E-28 |
| ENSG00000171848 | <i>RRM2</i> | -0,37 | 4,74E-06 | -0,85 | 7,17E-28 |
| ENSG00000130766 | <i>SESN2</i> | -1,59 | 2,88E-39 | -1,29 | 1,36E-27 |
| ENSG00000132463 | <i>GRSF1</i> | -0,72 | 1,14E-20 | -0,83 | 2,68E-27 |
| ENSG00000135269 | <i>TES</i> | -0,65 | 1,70E-19 | -0,77 | 3,57E-27 |
| ENSG00000124226 | <i>RNF114</i> | -0,90 | 1,72E-22 | -0,99 | 4,12E-27 |
| ENSG00000134107 | <i>BHLHE40</i> | -0,50 | 1,71E-06 | -1,09 | 1,31E-26 |
| ENSG00000144677 | <i>CTDSPL</i> | -1,47 | 3,38E-28 | -1,39 | 3,95E-26 |
| ENSG00000088325 | <i>TPX2</i> | -0,46 | 1,44E-12 | -0,68 | 5,68E-26 |
| ENSG00000116016 | <i>EPAS1</i> | -0,90 | 7,37E-30 | -0,83 | 1,13E-25 |
| ENSG00000142453 | <i>CARM1</i> | -1,11 | 3,68E-22 | -1,19 | 1,58E-25 |
| ENSG00000128272 | <i>ATF4</i> | -0,46 | 3,24E-13 | -0,64 | 1,76E-25 |
| ENSG00000149503 | <i>INCENP</i> | -0,80 | 5,15E-18 | -0,96 | 2,15E-25 |
| ENSG00000198561 | <i>CTNND1</i> | -0,79 | 6,66E-31 | -0,71 | 2,96E-25 |
| ENSG00000126003 | <i>LOC152845</i> | -1,38 | 9,44E-52 | -0,93 | 3,64E-25 |
| ENSG00000185900 | <i>SGK196</i> | -0,66 | 2,98E-03 | -2,33 | 4,47E-25 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000121671 | <i>CRY2</i> | -0,72 | 3,44E-08 | -1,34 | 4,55E-25 |
| ENSG00000137337 | <i>MDC1</i> | -0,80 | 1,27E-21 | -0,85 | 1,76E-24 |
| ENSG00000177302 | <i>TOP3A</i> | -0,90 | 3,20E-19 | -1,02 | 1,79E-24 |
| ENSG00000130741 | <i>EIF2S3</i> | -1,36 | 2,11E-58 | -0,85 | 2,32E-24 |
| ENSG00000132688 | <i>NES</i> | -1,12 | 4,44E-49 | -0,76 | 1,05E-23 |
| ENSG00000136237 | <i>RAPGEF5</i> | -0,48 | 2,09E-06 | -0,98 | 1,67E-23 |
| ENSG00000198853 | <i>RUSC2</i> | -1,88 | 2,58E-52 | -1,21 | 1,93E-23 |
| ENSG00000118579 | <i>MED28</i> | -0,62 | 3,20E-09 | -1,02 | 3,70E-23 |
| ENSG00000170027 | <i>YWHAG</i> | -0,33 | 7,60E-06 | -0,69 | 7,86E-23 |
| ENSG00000173065 | <i>C17ORF63</i> | -1,25 | 7,71E-31 | -1,05 | 1,22E-22 |
| ENSG00000164543 | <i>STK17A</i> | -0,99 | 9,71E-39 | -0,74 | 1,55E-22 |
| ENSG00000189067 | <i>LITAF</i> | -1,32 | 1,89E-28 | -1,15 | 1,56E-22 |
| ENSG00000205730 | <i>ITPRIPL2</i> | -1,29 | 7,08E-13 | -1,77 | 3,13E-22 |
| ENSG00000133119 | <i>RFC3</i> | -0,30 | 9,71E-03 | -1,04 | 6,22E-22 |
| ENSG00000113739 | <i>STC2</i> | -0,94 | 1,37E-13 | -1,21 | 9,58E-22 |
| ENSG00000163347 | <i>CLDN1</i> | -0,19 | 1,35E-03 | -0,52 | 9,73E-22 |
| ENSG00000058262 | <i>SEC61A1</i> | -0,58 | 1,96E-19 | -0,61 | 1,48E-21 |
| ENSG00000113387 | <i>SUB1</i> | -0,33 | 3,23E-06 | -0,65 | 1,55E-21 |
| ENSG00000146433 | <i>TMEM181</i> | -0,28 | 2,18E-03 | -0,80 | 1,63E-21 |
| ENSG00000141458 | <i>NPC1</i> | -0,28 | 7,14E-03 | -0,92 | 2,15E-21 |
| ENSG00000197081 | <i>IGF2R</i> | -0,99 | 1,84E-48 | -0,64 | 3,40E-21 |
| ENSG00000093000 | <i>NUP50</i> | -0,22 | 6,18E-03 | -0,70 | 3,95E-21 |
| ENSG00000146729 | <i>GBAS</i> | -0,75 | 5,64E-10 | -1,13 | 5,22E-21 |
| ENSG00000100422 | <i>CERK</i> | -1,31 | 4,40E-35 | -0,99 | 5,68E-21 |
| ENSG00000168395 | <i>ING5</i> | -0,49 | 2,42E-04 | -1,22 | 6,19E-21 |
| ENSG00000141568 | <i>FOXK2</i> | -0,74 | 4,12E-14 | -0,91 | 1,27E-20 |
| ENSG00000173207 | <i>CKS1B</i> | -0,52 | 3,39E-10 | -0,76 | 1,48E-20 |
| ENSG00000134970 | <i>TICAM2</i> | -0,72 | 2,91E-14 | -0,87 | 3,24E-20 |
| ENSG00000205336 | <i>GPR56</i> | -1,00 | 1,57E-11 | -1,37 | 3,34E-20 |
| ENSG00000010818 | <i>HIVEP2</i> | -1,26 | 3,10E-19 | -1,28 | 4,14E-20 |
| ENSG00000087266 | <i>SH3BP2</i> | -0,57 | 1,19E-04 | -1,34 | 4,59E-20 |
| ENSG00000160867 | <i>FGFR4</i> | -1,37 | 1,05E-82 | -0,65 | 6,04E-20 |

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000163539 | <i>CLASP2</i> | -0,62 | 2,24E-08 | -0,98 | 3,38E-19 |
| ENSG00000005339 | <i>CREBBP</i> | -0,60 | 3,78E-15 | -0,67 | 6,64E-19 |
| ENSG00000175216 | <i>CKAP5</i> | -0,58 | 2,56E-16 | -0,63 | 7,54E-19 |
| ENSG00000108557 | <i>RAI1</i> | -0,60 | 1,09E-07 | -0,98 | 9,49E-19 |
| ENSG00000114554 | <i>PLXNA1</i> | -1,22 | 8,88E-52 | -0,71 | 1,05E-18 |
| ENSG00000197312 | <i>DDI2</i> | -0,39 | 3,13E-04 | -0,93 | 1,11E-18 |
| ENSG00000164287 | <i>CDC20B</i> | -0,66 | 1,46E-05 | -1,34 | 1,34E-18 |
| ENSG00000134086 | <i>VHL</i> | -0,56 | 6,76E-10 | -0,79 | 1,66E-18 |
| ENSG00000142949 | <i>PTPRF</i> | -0,74 | 7,71E-27 | -0,61 | 1,72E-18 |
| ENSG00000101057 | <i>MYBL2</i> | -0,40 | 2,04E-07 | -0,65 | 1,88E-18 |
| ENSG00000165689 | <i>LOC646891</i> | -0,37 | 1,45E-04 | -0,83 | 2,17E-18 |
| ENSG00000158985 | <i>CDC42SE2</i> | -0,53 | 2,37E-05 | -1,07 | 2,18E-18 |
| ENSG00000107249 | <i>GLIS3</i> | -1,43 | 2,15E-36 | -0,96 | 2,53E-18 |
| ENSG00000183943 | <i>PRKX</i> | -0,54 | 2,12E-04 | -1,25 | 3,01E-18 |
| ENSG00000167491 | <i>GATAD2A</i> | -1,10 | 7,10E-27 | -0,88 | 3,84E-18 |
| ENSG00000100567 | <i>PSMA3</i> | -0,47 | 1,25E-05 | -0,92 | 4,43E-18 |
| ENSG00000048052 | <i>HDAC9</i> | -1,72 | 2,21E-27 | -1,33 | 5,32E-18 |
| ENSG00000148297 | <i>MED22</i> | -0,56 | 5,66E-07 | -0,94 | 6,16E-18 |
| ENSG00000136504 | <i>LOC648927</i> | -0,33 | 1,48E-03 | -0,84 | 6,59E-18 |
| ENSG00000148773 | <i>MKI67</i> | -0,62 | 1,83E-18 | -0,61 | 1,10E-17 |
| ENSG00000170776 | <i>AKAP13</i> | -0,59 | 4,90E-11 | -0,75 | 1,63E-17 |
| ENSG00000133657 | <i>ATP13A3</i> | -0,22 | 8,96E-03 | -0,66 | 1,80E-17 |
| ENSG00000186174 | <i>BCL9L</i> | -1,10 | 5,34E-23 | -0,94 | 2,35E-17 |
| ENSG00000080603 | <i>SRCAP</i> | -0,22 | 4,36E-03 | -0,60 | 2,41E-17 |
| ENSG00000142230 | <i>SAE1</i> | -0,35 | 3,54E-05 | -0,68 | 2,63E-17 |
| ENSG00000175224 | <i>KIAA0652</i> | -1,03 | 4,57E-25 | -0,84 | 4,32E-17 |
| ENSG00000084463 | <i>WBP11</i> | -0,39 | 1,14E-06 | -0,66 | 8,58E-17 |
| ENSG00000131374 | <i>TBC1D5</i> | -1,31 | 5,59E-34 | -0,88 | 9,75E-17 |
| ENSG00000015520 | <i>NPC1L1</i> | -0,52 | 8,41E-06 | -0,94 | 1,01E-16 |
| ENSG00000057252 | <i>SOAT1</i> | -0,32 | 2,20E-04 | -0,69 | 1,02E-16 |
| ENSG00000094916 | <i>CBX5</i> | -0,48 | 8,07E-10 | -0,63 | 1,07E-16 |
| ENSG00000138018 | <i>EPT1</i> | -0,52 | 2,06E-08 | -0,75 | 1,08E-16 |

Hepatology

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| ENSG00000166025 | <i>AMOTL1</i> | -1,28 | 2,13E-27 | -0,96 | 1,15E-16 |
| ENSG00000160294 | <i>MCM3AP</i> | -0,30 | 1,20E-03 | -0,71 | 1,37E-16 |
| ENSG00000113273 | <i>ARSB</i> | -0,42 | 7,14E-03 | -1,23 | 1,58E-16 |
| ENSG00000145431 | <i>PDGFC</i> | -0,82 | 3,04E-16 | -0,82 | 2,07E-16 |
| ENSG00000135476 | <i>ESPL1</i> | -0,31 | 7,05E-04 | -0,72 | 3,31E-16 |
| ENSG00000183723 | <i>CMTM4</i> | -0,52 | 9,77E-07 | -0,84 | 8,03E-16 |
| ENSG00000116017 | <i>ARID3A</i> | -0,86 | 8,41E-27 | -0,65 | 8,90E-16 |
| ENSG00000185215 | <i>TNFAIP2</i> | -0,86 | 1,09E-13 | -0,93 | 9,92E-16 |
| ENSG00000175130 | <i>MARCKSL1</i> | -0,54 | 3,84E-12 | -0,62 | 1,08E-15 |
| ENSG00000109320 | <i>NFKB1</i> | -0,62 | 2,32E-09 | -0,82 | 1,11E-15 |
| ENSG00000243156 | <i>MICAL3</i> | -0,36 | 1,54E-04 | -0,74 | 1,41E-15 |
| ENSG00000013619 | <i>MAMLD1</i> | -0,53 | 5,04E-03 | -1,47 | 1,46E-15 |
| ENSG00000153071 | <i>DAB2</i> | -1,20 | 6,65E-36 | -0,76 | 1,74E-15 |
| ENSG00000197408 | <i>CYP2B6</i> | -2,00 | 1,18E-56 | -0,96 | 1,95E-15 |
| ENSG00000259974 | <i>LNC00261</i> | -0,45 | 2,55E-08 | -0,63 | 2,32E-15 |
| ENSG00000130559 | <i>CAMSAP1</i> | -0,71 | 4,85E-08 | -1,02 | 2,36E-15 |
| ENSG00000196576 | <i>PLXNB2</i> | -0,79 | 3,03E-29 | -0,56 | 3,78E-15 |
| ENSG00000166123 | <i>GPT2</i> | -0,77 | 5,99E-09 | -1,02 | 5,07E-15 |
| ENSG00000008282 | <i>SYPL1</i> | -0,95 | 3,23E-23 | -0,74 | 6,02E-15 |
| ENSG00000267427 | / | -0,79 | 2,86E-11 | -0,92 | 6,08E-15 |
| ENSG00000129473 | <i>BCL2L2</i> | -0,65 | 7,61E-08 | -0,92 | 1,06E-14 |
| ENSG00000179195 | <i>ZNF664</i> | -0,71 | 7,51E-17 | -0,65 | 1,29E-14 |
| ENSG00000125398 | <i>SOX9</i> | -1,71 | 4,92E-91 | -0,63 | 1,58E-14 |
| ENSG00000162512 | <i>SDC3</i> | -0,40 | 2,67E-03 | -0,98 | 1,61E-14 |
| ENSG00000132182 | <i>NUP210</i> | -0,75 | 7,44E-21 | -0,62 | 1,86E-14 |
| ENSG00000101384 | <i>JAG1</i> | -1,41 | 1,52E-95 | -0,53 | 2,00E-14 |
| ENSG00000204138 | <i>PHACTR4</i> | -0,63 | 3,91E-13 | -0,66 | 2,36E-14 |
| ENSG00000111371 | <i>SLC38A1</i> | -0,63 | 1,09E-16 | -0,58 | 2,65E-14 |
| ENSG00000057019 | <i>DCBLD2</i> | -0,89 | 2,06E-22 | -0,69 | 3,11E-14 |
| ENSG00000106804 | <i>C5</i> | -0,30 | 1,34E-03 | -0,66 | 4,08E-14 |
| ENSG00000167721 | <i>TSR1</i> | -0,78 | 1,48E-17 | -0,69 | 4,32E-14 |
| ENSG00000112242 | <i>E2F3</i> | -0,74 | 1,16E-18 | -0,63 | 4,43E-14 |

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| ENSG00000133195 | <i>SLC39A11</i> | -0,77 | 3,52E-07 | -1,12 | 4,45E-14 |
| ENSG00000168488 | <i>ATXN2L</i> | -0,27 | 1,13E-03 | -0,59 | 4,62E-14 |
| ENSG00000213160 | <i>KLHL23</i> | -1,03 | 1,84E-28 | -0,70 | 5,04E-14 |
| ENSG00000128595 | <i>CALU</i> | -0,42 | 1,00E-09 | -0,51 | 6,49E-14 |
| ENSG00000141002 | <i>TCF25</i> | -0,64 | 1,84E-09 | -0,78 | 8,21E-14 |
| ENSG00000162290 | <i>DCP1A</i> | -0,44 | 4,30E-05 | -0,77 | 8,44E-14 |
| ENSG00000128342 | <i>LIF</i> | -2,25 | 5,80E-30 | -1,40 | 8,51E-14 |
| ENSG00000129654 | <i>FOXJ1</i> | -1,31 | 1,12E-07 | -1,85 | 8,51E-14 |
| ENSG00000104388 | <i>RAB2A</i> | -0,34 | 9,30E-04 | -0,74 | 9,08E-14 |
| ENSG00000133275 | <i>CSNK1G2</i> | -0,56 | 1,09E-06 | -0,84 | 9,94E-14 |
| ENSG00000071282 | <i>LMCD1</i> | -0,36 | 5,76E-03 | -0,92 | 1,01E-13 |
| ENSG00000204304 | <i>PBX2</i> | -1,34 | 8,46E-45 | -0,70 | 1,13E-13 |
| ENSG00000170044 | <i>ZPLD1</i> | -0,57 | 6,42E-04 | -1,20 | 1,17E-13 |
| ENSG00000116133 | <i>DHCR24</i> | -0,42 | 5,41E-07 | -0,61 | 1,21E-13 |
| ENSG00000140443 | <i>IGF1R</i> | -0,74 | 1,12E-13 | -0,73 | 1,38E-13 |
| ENSG00000197724 | <i>PHF2</i> | -0,65 | 5,00E-09 | -0,81 | 1,58E-13 |
| ENSG00000164323 | <i>KIAA1430</i> | -1,38 | 1,82E-30 | -0,88 | 1,77E-13 |
| ENSG00000135845 | <i>PIGC</i> | -0,48 | 1,80E-07 | -0,67 | 1,77E-13 |
| ENSG00000167978 | <i>LOC100132779</i> | -0,21 | 2,10E-03 | -0,48 | 1,79E-13 |
| ENSG00000066468 | <i>FGFR2</i> | -1,50 | 9,04E-25 | -1,05 | 2,52E-13 |
| ENSG00000077235 | <i>GTF3C1</i> | -0,39 | 6,27E-06 | -0,62 | 3,40E-13 |
| ENSG00000106948 | <i>AKNA</i> | -0,95 | 5,84E-06 | -1,53 | 3,40E-13 |
| ENSG00000145555 | <i>MYO10</i> | -1,61 | 2,15E-78 | -0,61 | 3,50E-13 |
| ENSG00000214113 | <i>LYRM4</i> | -0,48 | 2,82E-04 | -0,94 | 3,51E-13 |
| ENSG00000172893 | <i>DHCR7</i> | -0,47 | 9,56E-06 | -0,76 | 3,59E-13 |
| ENSG00000198034 | <i>RPS4X</i> | -0,83 | 3,15E-29 | -0,54 | 4,61E-13 |
| ENSG00000066117 | <i>SMARCD1</i> | -0,31 | 1,41E-03 | -0,67 | 6,41E-13 |
| ENSG00000188846 | <i>RPL14</i> | -0,82 | 2,35E-26 | -0,56 | 7,69E-13 |
| ENSG00000165323 | <i>FAT3</i> | -2,31 | 5,10E-54 | -1,00 | 8,52E-13 |
| ENSG00000121152 | <i>NCAPH</i> | -0,31 | 2,03E-03 | -0,68 | 1,03E-12 |
| ENSG00000171490 | <i>RSL1D1</i> | -0,72 | 3,24E-21 | -0,55 | 1,12E-12 |
| ENSG00000135074 | <i>ADAM19</i> | -1,08 | 4,75E-15 | -0,97 | 1,18E-12 |

Hepatology

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000116132 | <i>PRRX1</i> | -1,06 | 5,07E-11 | -1,14 | 1,46E-12 |
| ENSG00000137818 | <i>RPLP1</i> | -0,89 | 7,63E-26 | -0,61 | 1,50E-12 |
| ENSG00000065328 | <i>MCM10</i> | -0,65 | 3,00E-10 | -0,72 | 1,50E-12 |
| ENSG00000130702 | <i>LAMA5</i> | -0,42 | 8,81E-07 | -0,59 | 1,58E-12 |
| ENSG00000164292 | <i>RHOBTB3</i> | -0,47 | 1,01E-05 | -0,74 | 1,61E-12 |
| ENSG00000130382 | <i>MLLT1</i> | -0,76 | 8,38E-07 | -1,08 | 1,78E-12 |
| ENSG00000169242 | <i>EFNA1</i> | -0,83 | 7,16E-12 | -0,85 | 2,01E-12 |
| ENSG00000137166 | <i>FOXP4</i> | -0,94 | 1,54E-22 | -0,67 | 2,14E-12 |
| ENSG00000182492 | <i>BGN</i> | -1,39 | 9,97E-10 | -1,59 | 2,64E-12 |
| ENSG00000110048 | <i>OSBP</i> | -0,37 | 7,60E-05 | -0,64 | 2,79E-12 |
| ENSG00000064726 | <i>BTBD1</i> | -0,71 | 4,23E-15 | -0,63 | 2,91E-12 |
| ENSG00000176142 | <i>TMEM39A</i> | -0,34 | 5,06E-03 | -0,79 | 2,92E-12 |
| ENSG00000163754 | <i>GYG1</i> | -0,41 | 2,63E-03 | -0,90 | 3,66E-12 |
| ENSG00000064999 | <i>ANKS1A</i> | -0,84 | 2,74E-17 | -0,68 | 4,24E-12 |
| ENSG00000173020 | <i>ADRBK1</i> | -0,36 | 1,80E-04 | -0,64 | 4,48E-12 |
| ENSG00000257923 | <i>CUX1</i> | -0,45 | 1,34E-06 | -0,63 | 4,53E-12 |
| ENSG00000119900 | <i>OGFRL1</i> | -1,34 | 3,70E-16 | -1,12 | 4,86E-12 |
| ENSG00000163697 | <i>APBB2</i> | -0,45 | 8,95E-04 | -0,89 | 5,11E-12 |
| ENSG00000170348 | <i>TMED10</i> | -0,84 | 4,31E-27 | -0,55 | 5,77E-12 |
| ENSG00000033050 | <i>ABCF2</i> | -0,45 | 4,79E-06 | -0,66 | 6,26E-12 |
| ENSG00000171223 | <i>JUNB</i> | -0,56 | 6,11E-05 | -0,93 | 6,38E-12 |
| ENSG00000072803 | <i>FBXW11</i> | -0,44 | 1,72E-07 | -0,57 | 6,73E-12 |
| ENSG00000197771 | <i>C10ORF119</i> | -0,65 | 2,48E-13 | -0,61 | 7,09E-12 |
| ENSG00000120437 | <i>ACAT2</i> | -0,70 | 1,34E-10 | -0,75 | 7,44E-12 |
| ENSG00000134802 | <i>SLC43A3</i> | -0,31 | 7,15E-04 | -0,60 | 7,61E-12 |
| ENSG00000198830 | <i>HMGN2</i> | -0,31 | 4,34E-04 | -0,57 | 7,81E-12 |
| ENSG00000104738 | <i>MCM4</i> | -0,32 | 1,66E-05 | -0,49 | 8,37E-12 |
| ENSG00000135632 | <i>SMYD5</i> | -1,00 | 5,35E-18 | -0,78 | 9,08E-12 |
| ENSG00000012660 | <i>ELOVL5</i> | -0,44 | 6,91E-09 | -0,51 | 1,09E-11 |
| ENSG00000064313 | <i>TAF2</i> | -0,28 | 5,24E-03 | -0,64 | 1,28E-11 |
| ENSG00000074935 | <i>TUBE1</i> | -0,91 | 3,91E-08 | -1,11 | 1,29E-11 |
| ENSG00000173281 | <i>PPP1R3B</i> | -0,63 | 7,43E-07 | -0,84 | 1,30E-11 |

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|-----------------|---------------------|-------|----------|-------|----------|
| ENSG00000120942 | <i>UBIAD1</i> | -0,43 | 1,36E-03 | -0,87 | 1,49E-11 |
| ENSG00000140534 | <i>C15ORF42</i> | -0,34 | 4,20E-03 | -0,76 | 1,53E-11 |
| ENSG00000143815 | <i>LBR</i> | -0,22 | 5,28E-03 | -0,51 | 1,58E-11 |
| ENSG00000163083 | <i>INHBB</i> | -2,19 | 7,48E-52 | -0,93 | 1,63E-11 |
| ENSG00000172340 | <i>LOC283398</i> | -0,39 | 3,17E-05 | -0,62 | 1,75E-11 |
| ENSG00000131149 | <i>KIAA0182</i> | -1,17 | 1,38E-41 | -0,58 | 2,00E-11 |
| ENSG00000163735 | <i>CXCL5</i> | -3,69 | 1,16E-68 | -1,39 | 2,17E-11 |
| ENSG00000079432 | <i>CIC</i> | -0,81 | 1,16E-15 | -0,67 | 2,34E-11 |
| ENSG00000065150 | <i>IPO5</i> | -0,76 | 3,25E-24 | -0,51 | 2,47E-11 |
| ENSG00000103932 | <i>RPAP1</i> | -0,35 | 3,09E-04 | -0,63 | 2,65E-11 |
| ENSG00000181163 | <i>LOC100131044</i> | -0,40 | 3,53E-08 | -0,49 | 2,80E-11 |
| ENSG00000186185 | <i>KIF18B</i> | -0,32 | 3,27E-03 | -0,68 | 3,11E-11 |
| ENSG00000170312 | <i>CDK1</i> | -0,25 | 2,62E-03 | -0,52 | 4,38E-11 |
| ENSG00000145041 | <i>VPRBP</i> | -0,49 | 6,99E-06 | -0,71 | 4,87E-11 |
| ENSG00000135966 | <i>TGFBRAP1</i> | -0,92 | 2,24E-12 | -0,85 | 6,40E-11 |
| ENSG00000146457 | <i>WTAP</i> | -0,34 | 6,52E-04 | -0,62 | 8,24E-11 |
| ENSG00000152291 | <i>TGOLN2</i> | -1,09 | 3,83E-49 | -0,49 | 8,29E-11 |
| ENSG00000150938 | <i>CRIM1</i> | -0,49 | 4,49E-10 | -0,51 | 8,60E-11 |
| ENSG00000077684 | <i>PHF17</i> | -0,38 | 3,93E-05 | -0,58 | 9,61E-11 |
| ENSG00000070669 | <i>ASNS</i> | -1,00 | 2,41E-23 | -0,65 | 9,83E-11 |
| ENSG00000101544 | <i>ADNP2</i> | -0,52 | 1,94E-04 | -0,87 | 1,05E-10 |
| ENSG00000028528 | <i>SNX1</i> | -0,46 | 1,01E-06 | -0,60 | 1,12E-10 |
| ENSG00000136908 | <i>DPM2</i> | -0,71 | 7,14E-08 | -0,85 | 1,12E-10 |
| ENSG00000109084 | <i>TMEM97</i> | -0,30 | 3,28E-04 | -0,51 | 1,18E-10 |
| ENSG00000120254 | <i>MTHFD1L</i> | -1,05 | 1,06E-22 | -0,69 | 1,47E-10 |
| ENSG00000112029 | <i>FBXO5</i> | -0,63 | 7,50E-09 | -0,70 | 1,58E-10 |
| ENSG00000130816 | <i>DNMT1</i> | -0,30 | 2,67E-05 | -0,44 | 1,86E-10 |
| ENSG00000187605 | <i>TET3</i> | -0,62 | 1,62E-07 | -0,74 | 2,02E-10 |
| ENSG00000139722 | <i>VPS37B</i> | -0,74 | 6,14E-06 | -1,03 | 2,10E-10 |
| ENSG00000114850 | <i>SSR3</i> | -0,61 | 1,72E-15 | -0,50 | 2,11E-10 |
| ENSG00000260032 | <i>LINC00657</i> | -0,31 | 1,49E-04 | -0,50 | 2,28E-10 |
| ENSG00000147459 | <i>DOCK5</i> | -0,60 | 1,20E-07 | -0,71 | 2,46E-10 |

Hepatology

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|-----------------|----------------------|-------|----------|-------|----------|
| ENSG0000003137 | <i>CYP26B1</i> | -0,61 | 5,11E-04 | -1,08 | 2,56E-10 |
| ENSG00000185000 | <i>DGAT1</i> | -0,47 | 8,92E-03 | -1,07 | 2,59E-10 |
| ENSG00000168906 | <i>MAT2A</i> | -0,25 | 1,14E-03 | -0,45 | 3,34E-10 |
| ENSG00000101224 | <i>CDC25B</i> | -0,39 | 5,95E-04 | -0,69 | 3,46E-10 |
| ENSG00000165238 | <i>WNK2</i> | -0,82 | 2,48E-10 | -0,81 | 3,46E-10 |
| ENSG00000164211 | <i>STARD4</i> | -0,34 | 7,58E-03 | -0,75 | 3,51E-10 |
| ENSG00000141738 | <i>GRB7</i> | -0,66 | 3,49E-05 | -0,99 | 3,67E-10 |
| ENSG00000104885 | <i>DOT1L</i> | -0,55 | 1,08E-06 | -0,70 | 4,01E-10 |
| ENSG00000092847 | <i>EIF2C1</i> | -0,30 | 8,28E-03 | -0,68 | 4,32E-10 |
| ENSG00000160113 | <i>NR2F6</i> | -0,90 | 3,33E-12 | -0,81 | 4,65E-10 |
| ENSG00000134758 | <i>RNF138</i> | -0,66 | 4,57E-05 | -0,99 | 4,99E-10 |
| ENSG00000007202 | <i>KIAA0100</i> | -0,42 | 1,03E-05 | -0,58 | 5,37E-10 |
| ENSG00000058804 | <i>TMEM48</i> | -0,77 | 1,11E-18 | -0,54 | 5,52E-10 |
| ENSG00000116962 | <i>NID1</i> | -0,77 | 6,17E-24 | -0,48 | 7,43E-10 |
| ENSG00000077514 | <i>POLD3</i> | -0,81 | 4,10E-08 | -0,90 | 8,13E-10 |
| ENSG00000213676 | <i>ATF6B</i> | -0,57 | 4,50E-08 | -0,64 | 8,43E-10 |
| ENSG00000159840 | <i>ZYX</i> | -0,43 | 2,77E-08 | -0,47 | 9,36E-10 |
| ENSG00000117707 | <i>PROX1</i> | -0,41 | 7,12E-09 | -0,44 | 9,70E-10 |
| ENSG00000132155 | <i>RAF1</i> | -0,66 | 6,73E-15 | -0,52 | 9,84E-10 |
| ENSG00000117505 | <i>DR1</i> | -0,80 | 3,42E-16 | -0,60 | 1,01E-09 |
| ENSG00000107562 | <i>CXCL12</i> | -0,42 | 1,64E-03 | -0,77 | 1,04E-09 |
| ENSG00000160949 | <i>NFKBIL2</i> | -0,38 | 2,73E-03 | -0,73 | 1,06E-09 |
| ENSG00000120438 | <i>TCP1</i> | -0,24 | 2,02E-03 | -0,46 | 1,15E-09 |
| ENSG00000142089 | <i>IFITM3</i> | -0,43 | 1,88E-06 | -0,54 | 1,21E-09 |
| ENSG00000148840 | <i>PPRC1</i> | -0,76 | 3,35E-12 | -0,67 | 1,29E-09 |
| ENSG00000244062 | <i>RP11-404G16.2</i> | -1,48 | 3,52E-07 | -1,76 | 1,33E-09 |
| ENSG00000143569 | <i>UBAP2L</i> | -0,38 | 4,74E-08 | -0,42 | 1,34E-09 |
| ENSG00000075618 | <i>FSCN1</i> | -0,47 | 2,42E-04 | -0,76 | 1,34E-09 |
| ENSG00000113569 | <i>NUP155</i> | -0,35 | 1,83E-05 | -0,49 | 1,44E-09 |
| ENSG00000128965 | <i>CHAC1</i> | -0,81 | 1,80E-07 | -0,94 | 1,47E-09 |
| ENSG00000134897 | <i>BIVM</i> | -0,80 | 2,38E-08 | -0,86 | 1,65E-09 |
| ENSG00000007047 | <i>MARK4</i> | -1,31 | 2,36E-21 | -0,82 | 2,00E-09 |

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|-----------------|---------------------|-------|----------|-------|----------|
| ENSG00000100139 | <i>MICALL1</i> | -0,64 | 1,80E-08 | -0,68 | 2,05E-09 |
| ENSG00000128829 | <i>EIF2AK4</i> | -1,08 | 9,31E-21 | -0,69 | 2,07E-09 |
| ENSG00000065809 | <i>FAM107B</i> | -1,60 | 1,94E-75 | -0,51 | 2,15E-09 |
| ENSG00000196756 | <i>LOC388796</i> | -0,54 | 2,43E-06 | -0,67 | 2,23E-09 |
| ENSG00000135069 | <i>C8ORF62</i> | -1,04 | 5,83E-28 | -0,58 | 2,31E-09 |
| ENSG00000164638 | <i>LOC100132308</i> | -0,46 | 1,19E-05 | -0,61 | 2,32E-09 |
| ENSG00000133884 | <i>DPF2</i> | -0,31 | 8,37E-03 | -0,65 | 2,35E-09 |
| ENSG00000159352 | <i>PSMD4</i> | -0,26 | 8,48E-04 | -0,45 | 2,72E-09 |
| ENSG00000155304 | <i>HSPA13</i> | -1,06 | 8,22E-23 | -0,65 | 2,93E-09 |
| ENSG00000157985 | <i>AGAP1</i> | -1,04 | 2,10E-13 | -0,83 | 2,99E-09 |
| ENSG00000126767 | <i>ELK1</i> | -0,56 | 1,50E-03 | -1,02 | 3,10E-09 |
| ENSG00000137309 | <i>HMGA1</i> | -1,40 | 9,82E-67 | -0,49 | 3,29E-09 |
| ENSG00000111845 | <i>PAK1IP1</i> | -0,75 | 7,11E-13 | -0,62 | 3,34E-09 |
| ENSG00000225485 | / | -1,33 | 1,98E-13 | -1,06 | 3,90E-09 |
| ENSG00000066583 | <i>ISOC1</i> | -0,36 | 4,66E-03 | -0,72 | 4,07E-09 |
| ENSG00000072310 | <i>SREBF1</i> | -1,25 | 1,93E-35 | -0,59 | 4,08E-09 |
| ENSG00000094804 | <i>CDC6</i> | -0,48 | 7,39E-10 | -0,46 | 4,31E-09 |
| ENSG00000150768 | <i>DLAT</i> | -0,75 | 4,05E-17 | -0,53 | 4,32E-09 |
| ENSG00000010404 | <i>IDS</i> | -0,55 | 1,06E-03 | -0,95 | 5,84E-09 |
| ENSG00000066654 | <i>THUMPD1</i> | -0,70 | 1,49E-10 | -0,64 | 6,55E-09 |
| ENSG00000112664 | <i>NUDT3</i> | -0,45 | 8,18E-03 | -0,93 | 6,55E-09 |
| ENSG00000134686 | <i>PHC2</i> | -0,92 | 7,71E-21 | -0,57 | 7,47E-09 |
| ENSG00000121481 | <i>RNF2</i> | -0,48 | 5,44E-04 | -0,77 | 8,15E-09 |
| ENSG00000167088 | <i>LOC100129492</i> | -0,55 | 2,81E-08 | -0,56 | 8,86E-09 |
| ENSG00000166887 | <i>VPS39</i> | -0,93 | 3,45E-17 | -0,63 | 8,86E-09 |
| ENSG00000146232 | <i>NFKBIE</i> | -0,76 | 1,10E-05 | -0,99 | 8,89E-09 |
| ENSG00000132142 | <i>ACACA</i> | -1,53 | 3,11E-45 | -0,63 | 9,48E-09 |
| ENSG00000133636 | <i>NTS</i> | -0,82 | 2,63E-28 | -0,44 | 9,70E-09 |
| ENSG00000101752 | <i>MIB1</i> | -0,39 | 5,80E-06 | -0,48 | 1,05E-08 |
| ENSG00000143321 | <i>HDGF</i> | -0,31 | 4,31E-06 | -0,38 | 1,14E-08 |
| ENSG00000101444 | <i>AHCY</i> | -1,04 | 6,15E-41 | -0,45 | 1,63E-08 |
| ENSG00000119285 | <i>HEATR1</i> | -0,63 | 1,53E-12 | -0,51 | 1,67E-08 |

Hepatology

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| ENSG00000163435 | <i>ELF3</i> | -0,48 | 4,25E-05 | -0,65 | 1,70E-08 |
| ENSG00000142541 | <i>RPL13A</i> | -0,69 | 5,40E-26 | -0,38 | 1,71E-08 |
| ENSG00000119787 | <i>ATL2</i> | -0,43 | 3,54E-05 | -0,58 | 1,74E-08 |
| ENSG00000070756 | <i>PABPC1</i> | -0,78 | 4,68E-27 | -0,42 | 1,76E-08 |
| ENSG00000157827 | <i>FMNL2</i> | -0,63 | 2,40E-12 | -0,51 | 1,94E-08 |
| ENSG00000091986 | <i>CCDC80</i> | -1,98 | 1,45E-55 | -0,68 | 2,08E-08 |
| ENSG00000164825 | <i>DEFB1</i> | -0,71 | 9,33E-03 | -1,49 | 2,13E-08 |
| ENSG00000211460 | <i>TSN</i> | -1,19 | 5,65E-55 | -0,44 | 2,22E-08 |
| ENSG00000198858 | <i>C19ORF22</i> | -0,48 | 4,25E-06 | -0,58 | 2,42E-08 |
| ENSG00000109685 | <i>WHSC1</i> | -0,46 | 3,48E-09 | -0,44 | 2,42E-08 |
| ENSG00000159128 | <i>IFNGR2</i> | -0,65 | 1,21E-06 | -0,74 | 2,42E-08 |
| ENSG00000146223 | <i>RPL7L1</i> | -0,88 | 7,37E-30 | -0,45 | 2,42E-08 |
| ENSG00000102978 | <i>POLR2C</i> | -0,40 | 7,11E-05 | -0,55 | 2,46E-08 |
| ENSG00000138095 | <i>LRPPRC</i> | -0,59 | 2,37E-15 | -0,43 | 2,53E-08 |
| ENSG00000171456 | <i>ASXL1</i> | -0,27 | 5,13E-04 | -0,42 | 3,02E-08 |
| ENSG00000088038 | <i>CNOT3</i> | -0,52 | 5,18E-05 | -0,70 | 3,40E-08 |
| ENSG00000215021 | <i>PHB2</i> | -0,89 | 3,13E-28 | -0,45 | 3,79E-08 |
| ENSG00000155506 | <i>LARP1</i> | -0,35 | 1,94E-06 | -0,40 | 3,85E-08 |
| ENSG00000112414 | <i>GPR126</i> | -1,50 | 7,75E-87 | -0,43 | 4,08E-08 |
| ENSG00000091127 | <i>PUS7</i> | -0,38 | 6,20E-03 | -0,71 | 4,21E-08 |
| ENSG00000127863 | <i>TNFRSF19</i> | -0,93 | 9,59E-16 | -0,63 | 4,23E-08 |
| ENSG00000128928 | <i>IVD</i> | -0,41 | 6,18E-05 | -0,55 | 4,58E-08 |
| ENSG00000069275 | <i>NUCKS1</i> | -0,66 | 8,83E-23 | -0,38 | 4,59E-08 |
| ENSG00000066651 | <i>TRMT11</i> | -0,72 | 3,37E-07 | -0,77 | 4,82E-08 |
| ENSG00000169813 | <i>HNRNPF</i> | -0,65 | 4,35E-21 | -0,39 | 4,96E-08 |
| ENSG00000196313 | <i>POM121</i> | -0,82 | 2,31E-16 | -0,55 | 5,30E-08 |
| ENSG00000138074 | <i>SLC5A6</i> | -0,84 | 2,08E-14 | -0,60 | 5,30E-08 |
| ENSG00000112715 | <i>VEGFA</i> | -0,27 | 2,71E-03 | -0,47 | 5,32E-08 |
| ENSG00000143514 | <i>TP53BP2</i> | -0,23 | 5,95E-03 | -0,42 | 7,24E-08 |
| ENSG00000140350 | <i>ANP32A</i> | -1,00 | 5,48E-39 | -0,42 | 7,77E-08 |
| ENSG00000028116 | <i>VRK2</i> | -0,67 | 1,82E-06 | -0,75 | 8,30E-08 |
| ENSG00000144354 | <i>CDCA7</i> | -0,87 | 3,64E-16 | -0,57 | 8,34E-08 |

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| ENSG00000175061 | <i>NCRNA00188</i> | -0,60 | 5,61E-14 | -0,44 | 8,43E-08 |
| ENSG00000183853 | <i>KIRREL</i> | -1,27 | 1,12E-53 | -0,45 | 9,16E-08 |
| ENSG00000115902 | <i>SLC1A4</i> | -0,56 | 7,63E-07 | -0,61 | 9,16E-08 |
| ENSG00000124789 | <i>NUP153</i> | -0,47 | 8,25E-09 | -0,44 | 9,37E-08 |
| ENSG00000085415 | <i>SEH1L</i> | -0,82 | 8,48E-15 | -0,57 | 9,81E-08 |
| ENSG00000111642 | <i>CHD4</i> | -0,50 | 9,30E-14 | -0,37 | 1,02E-07 |
| ENSG00000174437 | <i>ATP2A2</i> | -0,25 | 5,90E-04 | -0,38 | 1,04E-07 |
| ENSG00000156030 | <i>C14ORF43</i> | -0,52 | 3,59E-06 | -0,59 | 1,11E-07 |
| ENSG00000131043 | <i>C20ORF4</i> | -0,65 | 6,78E-09 | -0,60 | 1,14E-07 |
| ENSG00000102974 | <i>CTCF</i> | -0,64 | 1,54E-10 | -0,53 | 1,20E-07 |
| ENSG00000163739 | <i>CXCL1</i> | -1,43 | 1,40E-17 | -0,88 | 1,24E-07 |
| ENSG00000087916 | <i>SLC6A14</i> | -1,64 | 4,69E-10 | -1,39 | 1,25E-07 |
| ENSG00000131236 | <i>CAP1</i> | -0,26 | 1,37E-03 | -0,41 | 1,29E-07 |
| ENSG00000166860 | <i>ZBTB39</i> | -0,71 | 5,26E-05 | -0,92 | 1,31E-07 |
| ENSG00000125686 | <i>MED1</i> | -0,37 | 1,38E-05 | -0,45 | 1,36E-07 |
| ENSG00000130713 | <i>EXOSC2</i> | -0,46 | 7,87E-05 | -0,60 | 1,44E-07 |
| ENSG00000204619 | <i>PPP1R11</i> | -0,44 | 3,07E-06 | -0,49 | 1,47E-07 |
| ENSG00000118495 | <i>PLAGL1</i> | -0,86 | 5,29E-13 | -0,63 | 1,48E-07 |
| ENSG00000181449 | <i>SOX2</i> | -1,11 | 6,53E-05 | -1,46 | 1,56E-07 |
| ENSG00000063660 | <i>GPC1</i> | -0,43 | 6,26E-04 | -0,65 | 1,59E-07 |
| ENSG00000181830 | <i>SLC35C1</i> | -0,71 | 2,21E-09 | -0,63 | 1,67E-07 |
| ENSG00000144712 | <i>CAND2</i> | -0,58 | 4,76E-03 | -1,04 | 1,68E-07 |
| ENSG00000118058 | <i>MLL</i> | -0,96 | 9,36E-29 | -0,46 | 1,73E-07 |
| ENSG00000119772 | <i>DNMT3A</i> | -0,38 | 1,68E-04 | -0,52 | 1,88E-07 |
| ENSG00000153989 | <i>LOC729148</i> | -0,52 | 1,30E-07 | -0,52 | 1,92E-07 |
| ENSG00000131446 | <i>MGAT1</i> | -0,81 | 2,47E-21 | -0,46 | 2,01E-07 |
| ENSG00000180287 | <i>PLD5</i> | -1,63 | 5,05E-23 | -0,84 | 2,06E-07 |
| ENSG00000126461 | <i>SCAF1</i> | -0,52 | 9,11E-05 | -0,68 | 2,15E-07 |
| ENSG00000196730 | <i>DAPK1</i> | -0,83 | 4,51E-21 | -0,47 | 2,55E-07 |
| ENSG00000145907 | <i>G3BP1</i> | -0,59 | 1,30E-16 | -0,38 | 2,59E-07 |
| ENSG00000170381 | <i>SEMA3E</i> | -1,15 | 8,66E-10 | -0,96 | 2,72E-07 |
| ENSG00000153767 | <i>GTF2E1</i> | -0,89 | 2,60E-11 | -0,69 | 2,73E-07 |

Hepatology

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|-----------------|-------------------|-------|----------|-------|----------|
| ENSG00000184640 | <i>SEPT9</i> | -0,46 | 3,98E-12 | -0,35 | 2,77E-07 |
| ENSG00000136888 | <i>ATP6V1G1</i> | -1,93 | 1,67E-85 | -0,50 | 2,79E-07 |
| ENSG00000142534 | <i>RPS11</i> | -0,57 | 4,61E-15 | -0,38 | 2,85E-07 |
| ENSG00000174547 | <i>MRPL11</i> | -0,43 | 2,86E-05 | -0,52 | 2,88E-07 |
| ENSG00000007968 | <i>E2F2</i> | -1,42 | 3,33E-15 | -0,91 | 2,96E-07 |
| ENSG00000006715 | <i>VPS41</i> | -0,33 | 2,06E-03 | -0,52 | 3,01E-07 |
| ENSG00000149532 | <i>CPSF7</i> | -0,49 | 6,26E-09 | -0,43 | 3,16E-07 |
| ENSG00000177410 | <i>C20ORF199</i> | -0,95 | 3,94E-18 | -0,57 | 3,33E-07 |
| ENSG00000137656 | <i>BUD13</i> | -0,47 | 8,81E-03 | -0,88 | 3,49E-07 |
| ENSG00000091317 | <i>CMTM6</i> | -0,80 | 1,55E-15 | -0,52 | 3,57E-07 |
| ENSG00000198142 | <i>ANKRD57</i> | -0,47 | 3,96E-05 | -0,57 | 3,71E-07 |
| ENSG00000151834 | <i>GABRA2</i> | -1,06 | 1,04E-13 | -0,73 | 3,81E-07 |
| ENSG00000163785 | <i>RYK</i> | -0,66 | 1,99E-11 | -0,50 | 3,81E-07 |
| ENSG00000096696 | <i>DSP</i> | -0,58 | 3,30E-17 | -0,36 | 3,91E-07 |
| ENSG00000137331 | <i>IER3</i> | -1,54 | 3,84E-48 | -0,55 | 4,21E-07 |
| ENSG00000077152 | <i>UBE2T</i> | -1,09 | 1,25E-26 | -0,52 | 4,24E-07 |
| ENSG00000077157 | <i>PPP1R12B</i> | -0,38 | 4,42E-04 | -0,54 | 4,45E-07 |
| ENSG00000167460 | <i>TPM4</i> | -1,33 | 6,84E-90 | -0,35 | 4,97E-07 |
| ENSG00000140157 | <i>NIPA2</i> | -0,80 | 9,56E-15 | -0,52 | 5,10E-07 |
| ENSG00000181222 | <i>POLR2A</i> | -0,29 | 3,62E-05 | -0,35 | 5,15E-07 |
| ENSG00000106355 | <i>LSM5</i> | -0,52 | 1,33E-08 | -0,46 | 5,31E-07 |
| ENSG00000099875 | <i>MKNK2</i> | -0,70 | 6,43E-09 | -0,61 | 5,34E-07 |
| ENSG00000197136 | <i>PCNXL3</i> | -0,74 | 3,69E-22 | -0,39 | 5,64E-07 |
| ENSG00000184992 | <i>BRI3BP</i> | -0,46 | 4,64E-07 | -0,45 | 5,67E-07 |
| ENSG00000183291 | <i>SEP15</i> | -0,38 | 4,92E-08 | -0,35 | 5,74E-07 |
| ENSG00000134824 | <i>FADS2</i> | -0,81 | 5,04E-13 | -0,57 | 6,06E-07 |
| ENSG00000135018 | <i>UBQLN1</i> | -0,43 | 2,47E-08 | -0,39 | 6,18E-07 |
| ENSG00000119777 | <i>TMEM214</i> | -0,32 | 4,09E-03 | -0,54 | 6,18E-07 |
| ENSG00000179361 | <i>ARID3B</i> | -1,53 | 2,87E-28 | -0,69 | 6,42E-07 |
| ENSG00000247626 | <i>MARS2</i> | -0,56 | 1,13E-05 | -0,63 | 6,48E-07 |
| ENSG00000108753 | <i>HNF1B</i> | -0,59 | 2,73E-05 | -0,70 | 6,88E-07 |
| ENSG00000228649 | <i>AC005682.5</i> | -1,14 | 3,69E-06 | -1,22 | 7,19E-07 |

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000163811 | <i>WDR43</i> | -0,76 | 6,47E-16 | -0,47 | 8,14E-07 |
| ENSG00000012232 | <i>EXTL3</i> | -0,45 | 1,06E-04 | -0,56 | 8,45E-07 |
| ENSG00000221867 | <i>MAGEA6</i> | -0,46 | 4,09E-03 | -0,76 | 9,13E-07 |
| ENSG00000177425 | <i>PAWR</i> | -0,65 | 4,82E-14 | -0,43 | 9,24E-07 |
| ENSG00000133935 | <i>C14ORF1</i> | -0,36 | 1,47E-03 | -0,53 | 9,91E-07 |
| ENSG00000170889 | <i>RPS9</i> | -0,63 | 7,72E-16 | -0,39 | 1,03E-06 |
| ENSG00000019144 | <i>PHLDB1</i> | -0,53 | 6,85E-07 | -0,52 | 1,12E-06 |
| ENSG00000073111 | <i>MCM2</i> | -0,30 | 4,15E-04 | -0,40 | 1,13E-06 |
| ENSG00000138032 | <i>PPM1B</i> | -0,44 | 2,73E-05 | -0,51 | 1,15E-06 |
| ENSG00000082781 | <i>ITGB5</i> | -0,43 | 3,29E-05 | -0,50 | 1,17E-06 |
| ENSG00000144711 | <i>IQSEC1</i> | -0,42 | 5,61E-05 | -0,51 | 1,19E-06 |
| ENSG00000132970 | <i>WASF3</i> | -0,85 | 1,61E-05 | -0,95 | 1,24E-06 |
| ENSG00000084652 | <i>TXLNA</i> | -1,03 | 3,29E-27 | -0,47 | 1,27E-06 |
| ENSG00000136193 | <i>SCRN1</i> | -0,37 | 1,56E-07 | -0,35 | 1,28E-06 |
| ENSG00000090924 | <i>PLEKHG2</i> | -0,70 | 2,96E-10 | -0,54 | 1,31E-06 |
| ENSG00000142192 | <i>APP</i> | -0,43 | 7,85E-13 | -0,30 | 1,33E-06 |
| ENSG00000068912 | <i>ERLEC1</i> | -0,71 | 8,94E-13 | -0,49 | 1,33E-06 |
| ENSG00000169862 | <i>CTNND2</i> | -0,36 | 1,14E-04 | -0,44 | 1,35E-06 |
| ENSG00000108829 | <i>LRRC59</i> | -0,48 | 1,66E-10 | -0,37 | 1,40E-06 |
| ENSG00000132382 | <i>MYBBP1A</i> | -1,28 | 4,15E-52 | -0,41 | 1,44E-06 |
| ENSG00000115568 | <i>ZNF142</i> | -0,37 | 1,80E-03 | -0,55 | 1,47E-06 |
| ENSG00000132388 | <i>UBE2G1</i> | -0,35 | 3,82E-05 | -0,41 | 1,51E-06 |
| ENSG00000169635 | <i>HIC2</i> | -1,71 | 6,82E-61 | -0,50 | 1,54E-06 |
| ENSG00000103005 | <i>C16ORF57</i> | -0,73 | 1,23E-12 | -0,50 | 1,58E-06 |
| ENSG00000128487 | <i>CYTSB</i> | -0,74 | 8,11E-15 | -0,46 | 1,63E-06 |
| ENSG00000164692 | <i>COL1A2</i> | -1,47 | 1,52E-08 | -1,24 | 1,63E-06 |
| ENSG00000124784 | <i>RIOK1</i> | -0,54 | 7,87E-07 | -0,52 | 1,64E-06 |
| ENSG00000174136 | <i>RGMB</i> | -0,99 | 1,20E-07 | -0,90 | 1,77E-06 |
| ENSG00000077782 | <i>FGFR1</i> | -0,78 | 5,88E-07 | -0,75 | 1,77E-06 |
| ENSG00000163479 | <i>SSR2</i> | -0,57 | 3,98E-17 | -0,33 | 1,82E-06 |
| ENSG00000130764 | <i>LRRC47</i> | -0,60 | 2,78E-07 | -0,56 | 1,87E-06 |
| ENSG00000174780 | <i>SRP72</i> | -1,40 | 3,90E-67 | -0,40 | 1,90E-06 |

Hepatology

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000142207 | <i>URB1</i> | -0,93 | 1,92E-19 | -0,50 | 1,99E-06 |
| ENSG00000163930 | <i>BAP1</i> | -0,65 | 2,96E-12 | -0,45 | 2,06E-06 |
| ENSG00000156970 | <i>BUB1B</i> | -0,49 | 2,76E-10 | -0,38 | 2,11E-06 |
| ENSG00000120800 | <i>LOC653877</i> | -0,58 | 1,03E-09 | -0,46 | 2,16E-06 |
| ENSG00000108506 | <i>INTS2</i> | -0,49 | 1,75E-04 | -0,61 | 2,23E-06 |
| ENSG00000234741 | <i>GAS5</i> | -0,95 | 1,04E-33 | -0,38 | 2,41E-06 |
| ENSG00000162613 | <i>FUBP1</i> | -0,50 | 3,34E-08 | -0,43 | 2,44E-06 |
| ENSG00000100632 | <i>ERH</i> | -0,84 | 6,61E-12 | -0,59 | 2,46E-06 |
| ENSG00000187741 | <i>FANCA</i> | -0,46 | 3,49E-03 | -0,72 | 2,56E-06 |
| ENSG00000108433 | <i>GOSR2</i> | -0,58 | 2,20E-05 | -0,63 | 2,66E-06 |
| ENSG00000229314 | <i>ORM1</i> | -1,55 | 2,06E-35 | -0,60 | 2,66E-06 |
| ENSG00000110104 | <i>CCDC86</i> | -0,70 | 2,81E-08 | -0,59 | 2,66E-06 |
| ENSG00000144524 | <i>COPS7B</i> | -0,39 | 3,22E-04 | -0,50 | 2,85E-06 |
| ENSG00000198952 | <i>SMG5</i> | -1,34 | 2,46E-56 | -0,41 | 2,88E-06 |
| ENSG00000140262 | <i>TCF12</i> | -0,52 | 8,34E-08 | -0,46 | 2,91E-06 |
| ENSG00000189362 | <i>TMEM194B</i> | -1,04 | 6,08E-15 | -0,63 | 3,00E-06 |
| ENSG00000102606 | <i>ARHGEF7</i> | -0,57 | 9,14E-09 | -0,47 | 3,00E-06 |
| ENSG00000136997 | <i>MYC</i> | -0,41 | 3,21E-04 | -0,52 | 3,02E-06 |
| ENSG00000099995 | <i>SF3A1</i> | -0,42 | 1,13E-06 | -0,40 | 3,15E-06 |
| ENSG00000197329 | <i>PELI1</i> | -0,92 | 8,13E-22 | -0,46 | 3,16E-06 |
| ENSG00000141027 | <i>NCOR1</i> | -0,31 | 1,12E-04 | -0,37 | 3,21E-06 |
| ENSG00000035499 | <i>DEPDC1B</i> | -0,28 | 8,61E-03 | -0,46 | 3,40E-06 |
| ENSG00000146858 | <i>ZC3HAV1L</i> | -1,03 | 2,53E-09 | -0,81 | 3,46E-06 |
| ENSG00000168175 | <i>MAPK1IP1L</i> | -0,29 | 2,76E-03 | -0,43 | 3,50E-06 |
| ENSG00000129195 | <i>FAM64A</i> | -0,41 | 5,24E-04 | -0,54 | 3,55E-06 |
| ENSG00000165891 | <i>E2F7</i> | -0,60 | 1,14E-05 | -0,63 | 3,62E-06 |
| ENSG00000185201 | <i>IFITM2</i> | -0,80 | 1,36E-03 | -1,14 | 3,64E-06 |
| ENSG00000107957 | <i>SH3PXD2A</i> | -1,95 | 1,43E-61 | -0,54 | 3,65E-06 |
| ENSG00000064309 | <i>CDON</i> | -0,73 | 4,40E-06 | -0,73 | 3,75E-06 |
| ENSG00000102225 | <i>CDK16</i> | -0,67 | 8,39E-10 | -0,51 | 3,82E-06 |
| ENSG00000099194 | <i>SCD</i> | -0,64 | 2,71E-04 | -0,80 | 3,99E-06 |
| ENSG00000147874 | <i>HAUS6</i> | -0,50 | 9,67E-06 | -0,52 | 4,11E-06 |

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| ENSG00000177479 | <i>ARIH2</i> | -0,35 | 4,34E-04 | -0,44 | 4,14E-06 |
| ENSG00000145386 | <i>CCNA2</i> | -0,66 | 2,98E-16 | -0,38 | 4,15E-06 |
| ENSG00000171206 | <i>TRIM8</i> | -0,51 | 2,12E-04 | -0,62 | 4,26E-06 |
| ENSG00000153879 | <i>CEBPG</i> | -0,67 | 4,75E-14 | -0,42 | 4,43E-06 |
| ENSG00000175376 | <i>EIF1AD</i> | -0,78 | 4,52E-12 | -0,52 | 4,48E-06 |
| ENSG00000123268 | <i>ATF1</i> | -0,62 | 3,13E-06 | -0,61 | 4,57E-06 |
| ENSG00000196230 | <i>LOC442308</i> | -0,74 | 7,17E-28 | -0,33 | 4,64E-06 |
| ENSG00000172534 | <i>HCFC1</i> | -0,55 | 2,15E-12 | -0,37 | 4,78E-06 |
| ENSG00000038382 | <i>TRIO</i> | -0,65 | 7,16E-17 | -0,37 | 4,85E-06 |
| ENSG00000160818 | <i>GPATCH4</i> | -1,29 | 1,99E-36 | -0,48 | 4,85E-06 |
| ENSG00000134057 | <i>CCNB1</i> | -0,55 | 4,25E-13 | -0,35 | 4,93E-06 |
| ENSG00000166181 | <i>API5</i> | -0,51 | 1,64E-09 | -0,39 | 5,08E-06 |
| ENSG00000135316 | <i>SYNCRIP</i> | -0,42 | 2,82E-07 | -0,38 | 5,10E-06 |
| ENSG00000111412 | <i>C12ORF49</i> | -0,54 | 3,35E-05 | -0,60 | 5,16E-06 |
| ENSG00000196141 | <i>SPATS2L</i> | -0,40 | 8,24E-07 | -0,37 | 5,31E-06 |
| ENSG00000121964 | <i>GTDC1</i> | -0,73 | 4,61E-04 | -0,94 | 5,43E-06 |
| ENSG00000165424 | <i>ZCCHC24</i> | -0,74 | 4,52E-04 | -0,94 | 5,59E-06 |
| ENSG00000164933 | <i>SLC25A32</i> | -0,44 | 4,17E-04 | -0,55 | 5,78E-06 |
| ENSG00000143126 | <i>CELSR2</i> | -0,50 | 2,03E-03 | -0,72 | 6,02E-06 |
| ENSG00000179051 | <i>RCC2</i> | -0,53 | 6,09E-10 | -0,39 | 6,10E-06 |
| ENSG00000087074 | <i>PPP1R15A</i> | -1,19 | 3,03E-26 | -0,51 | 6,14E-06 |
| ENSG00000102763 | <i>KIAA0564</i> | -0,55 | 1,29E-05 | -0,57 | 6,46E-06 |
| ENSG00000174371 | <i>EXO1</i> | -0,42 | 2,76E-04 | -0,51 | 6,77E-06 |
| ENSG00000134308 | <i>YWHAQ</i> | -0,37 | 1,75E-07 | -0,33 | 6,81E-06 |
| ENSG00000175898 | <i>S1PR2</i> | -0,97 | 1,13E-03 | -1,32 | 7,32E-06 |
| ENSG00000196367 | <i>TRRAP</i> | -0,75 | 5,23E-17 | -0,42 | 7,38E-06 |
| ENSG00000144840 | <i>RABL3</i> | -0,56 | 1,89E-03 | -0,79 | 7,44E-06 |
| ENSG00000166197 | <i>NOLC1</i> | -1,85 | 2,91E-99 | -0,40 | 7,55E-06 |
| ENSG00000140988 | <i>RPS2</i> | -0,67 | 1,94E-24 | -0,31 | 7,83E-06 |
| ENSG00000167635 | <i>ZNF146</i> | -1,92 | 4,43E-90 | -0,43 | 8,15E-06 |
| ENSG00000144713 | <i>RPL32</i> | -0,50 | 7,34E-12 | -0,34 | 8,15E-06 |
| ENSG00000132359 | <i>RAP1GAP2</i> | -0,83 | 4,42E-05 | -0,91 | 8,30E-06 |

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| ENSG00000135679 | <i>MDM2</i> | -0,69 | 7,60E-09 | -0,54 | 8,51E-06 |
| ENSG00000082898 | <i>XPO1</i> | -0,37 | 1,02E-06 | -0,34 | 8,74E-06 |
| ENSG00000121644 | <i>PPPDE1</i> | -1,52 | 1,05E-49 | -0,46 | 8,83E-06 |
| ENSG00000164815 | <i>ORC5L</i> | -0,49 | 2,46E-04 | -0,58 | 8,90E-06 |
| ENSG00000197498 | <i>RPF2</i> | -0,36 | 4,65E-03 | -0,55 | 9,30E-06 |
| ENSG00000196954 | <i>CASP4</i> | -1,00 | 1,14E-22 | -0,46 | 9,91E-06 |
| ENSG00000167695 | <i>FAM57A</i> | -0,77 | 1,76E-09 | -0,57 | 1,02E-05 |
| ENSG00000150630 | <i>VEGFC</i> | -0,78 | 1,50E-03 | -1,07 | 1,05E-05 |
| ENSG00000164329 | <i>PAPD4</i> | -0,52 | 1,83E-05 | -0,54 | 1,12E-05 |
| ENSG00000106638 | <i>TBL2</i> | -0,50 | 2,85E-05 | -0,52 | 1,12E-05 |
| ENSG00000148468 | <i>FAM171A1</i> | -0,56 | 1,03E-05 | -0,56 | 1,24E-05 |
| ENSG00000164109 | <i>MAD2L1</i> | -0,68 | 7,01E-15 | -0,39 | 1,31E-05 |
| ENSG00000021645 | <i>NRXN3</i> | -0,79 | 5,84E-13 | -0,49 | 1,31E-05 |
| ENSG00000011304 | <i>PTBP1</i> | -0,47 | 4,88E-08 | -0,38 | 1,34E-05 |
| ENSG00000184675 | <i>FAM123B</i> | -1,11 | 1,83E-09 | -0,80 | 1,34E-05 |
| ENSG00000115718 | <i>PROC</i> | -1,05 | 1,34E-07 | -0,87 | 1,36E-05 |
| ENSG00000143341 | <i>HMCN1</i> | -1,44 | 1,63E-06 | -1,31 | 1,37E-05 |
| ENSG00000231074 | <i>HCG18</i> | -1,25 | 7,24E-39 | -0,42 | 1,39E-05 |
| ENSG00000087269 | <i>NOP14</i> | -0,85 | 1,73E-16 | -0,45 | 1,47E-05 |
| ENSG00000164171 | <i>ITGA2</i> | -0,43 | 3,14E-03 | -0,61 | 1,71E-05 |
| ENSG00000168734 | <i>PKIG</i> | -0,93 | 1,12E-03 | -1,21 | 1,71E-05 |
| ENSG00000181938 | <i>GINS3</i> | -0,52 | 3,42E-03 | -0,74 | 1,71E-05 |
| ENSG00000099381 | <i>SETD1A</i> | -0,30 | 6,11E-03 | -0,45 | 1,73E-05 |
| ENSG00000184226 | <i>PCDH9</i> | -1,29 | 2,85E-19 | -0,62 | 1,76E-05 |
| ENSG00000164924 | <i>YWHAZ</i> | -0,50 | 3,88E-18 | -0,26 | 1,77E-05 |
| ENSG00000063046 | <i>EIF4B</i> | -0,55 | 3,69E-13 | -0,34 | 1,83E-05 |
| ENSG00000244462 | <i>RBM12</i> | -0,26 | 6,09E-03 | -0,39 | 1,83E-05 |
| ENSG00000182272 | <i>B4GALNT4</i> | -1,64 | 3,90E-14 | -0,93 | 1,88E-05 |
| ENSG00000135486 | <i>HNRNPA1</i> | -0,64 | 5,10E-26 | -0,27 | 1,98E-05 |
| ENSG00000218226 | <i>TATDN2P2</i> | -0,87 | 2,18E-04 | -1,00 | 2,03E-05 |
| ENSG00000004975 | <i>DVL2</i> | -0,28 | 5,38E-03 | -0,41 | 2,06E-05 |
| ENSG00000130227 | <i>XPO7</i> | -0,82 | 2,92E-18 | -0,41 | 2,10E-05 |

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| ENSG00000085999 | <i>RAD54L</i> | -0,70 | 6,47E-05 | -0,74 | 2,14E-05 |
| ENSG00000047457 | <i>CP</i> | -1,77 | 7,74E-45 | -0,54 | 2,16E-05 |
| ENSG00000161021 | <i>MAML1</i> | -0,93 | 4,72E-13 | -0,56 | 2,23E-05 |
| ENSG00000170779 | <i>CDCA4</i> | -0,54 | 1,81E-04 | -0,61 | 2,25E-05 |
| ENSG00000169504 | <i>CLIC4</i> | -0,48 | 3,67E-06 | -0,44 | 2,27E-05 |
| ENSG00000126226 | <i>PCID2</i> | -0,31 | 6,77E-04 | -0,38 | 2,44E-05 |
| ENSG00000088826 | <i>SMOX</i> | -0,98 | 1,28E-11 | -0,62 | 2,49E-05 |
| ENSG00000162063 | <i>CCNF</i> | -0,95 | 1,35E-13 | -0,55 | 2,60E-05 |
| ENSG00000149187 | <i>CELF1</i> | -0,89 | 9,89E-37 | -0,31 | 2,71E-05 |
| ENSG00000214262 | <i>ANKRD36B</i> | -0,63 | 2,88E-05 | -0,63 | 2,87E-05 |
| ENSG00000093009 | <i>CDC45</i> | -1,19 | 6,73E-19 | -0,57 | 2,89E-05 |
| ENSG00000145425 | <i>LOC100130107</i> | -0,74 | 5,80E-28 | -0,30 | 3,01E-05 |
| ENSG00000166803 | <i>KIAA0101</i> | -0,52 | 6,98E-06 | -0,49 | 3,01E-05 |
| ENSG00000085788 | <i>DDHD2</i> | -0,58 | 5,66E-07 | -0,48 | 3,01E-05 |
| ENSG00000060688 | <i>SNRNP40</i> | -0,56 | 1,02E-05 | -0,53 | 3,04E-05 |
| ENSG00000149573 | <i>MPZL2</i> | -0,31 | 8,60E-03 | -0,47 | 3,14E-05 |
| ENSG00000140406 | <i>MESDC1</i> | -0,96 | 3,08E-06 | -0,86 | 3,25E-05 |
| ENSG00000088930 | <i>XRN2</i> | -0,62 | 1,15E-15 | -0,33 | 3,31E-05 |
| ENSG00000075218 | <i>GTSE1</i> | -0,61 | 3,79E-09 | -0,44 | 3,38E-05 |
| ENSG00000095752 | <i>IL11</i> | -1,11 | 3,45E-04 | -1,27 | 3,39E-05 |
| ENSG00000119559 | <i>C19ORF25</i> | -0,85 | 2,08E-10 | -0,56 | 3,58E-05 |
| ENSG00000132780 | <i>NASP</i> | -0,82 | 3,13E-32 | -0,30 | 3,90E-05 |
| ENSG00000196208 | <i>GREB1</i> | -0,56 | 1,30E-04 | -0,60 | 4,03E-05 |
| ENSG00000178607 | <i>ERN1</i> | -0,96 | 8,01E-07 | -0,80 | 4,36E-05 |
| ENSG00000141576 | <i>RNF157</i> | -1,24 | 1,60E-26 | -0,49 | 4,37E-05 |
| ENSG00000163812 | <i>ZDHHC3</i> | -0,79 | 7,80E-12 | -0,48 | 4,50E-05 |
| ENSG00000074181 | <i>NOTCH3</i> | -0,80 | 3,67E-08 | -0,59 | 4,56E-05 |
| ENSG00000165030 | <i>NFIL3</i> | -0,78 | 4,60E-11 | -0,49 | 4,74E-05 |
| ENSG00000144824 | <i>PHLDB2</i> | -0,51 | 4,84E-06 | -0,46 | 4,96E-05 |
| ENSG00000151892 | <i>GFRA1</i> | -2,99 | 3,68E-23 | -1,15 | 5,07E-05 |
| ENSG00000125648 | <i>SLC25A23</i> | -0,80 | 4,18E-14 | -0,44 | 5,19E-05 |
| ENSG00000178202 | <i>KDELC2</i> | -0,39 | 8,00E-05 | -0,40 | 5,24E-05 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000141867 | <i>BRD4</i> | -0,43 | 4,87E-07 | -0,35 | 5,33E-05 |
| ENSG00000112290 | <i>WASF1</i> | -0,91 | 7,27E-14 | -0,50 | 5,46E-05 |
| ENSG00000156504 | <i>FAM122B</i> | -0,82 | 7,73E-12 | -0,49 | 5,46E-05 |
| ENSG00000135801 | <i>TAF5L</i> | -0,30 | 4,94E-03 | -0,42 | 5,57E-05 |
| ENSG00000132002 | <i>DNAJB1</i> | -0,26 | 9,20E-03 | -0,38 | 5,66E-05 |
| ENSG00000143420 | <i>ENSA</i> | -0,32 | 6,92E-05 | -0,33 | 5,73E-05 |
| ENSG00000139211 | <i>AMIGO2</i> | -0,72 | 4,83E-05 | -0,71 | 5,93E-05 |
| ENSG00000156639 | <i>ZFAND3</i> | -0,66 | 9,44E-15 | -0,36 | 6,11E-05 |
| ENSG00000138668 | <i>HNRNPD</i> | -0,56 | 3,09E-11 | -0,35 | 6,11E-05 |
| ENSG00000101310 | <i>SEC23B</i> | -0,48 | 1,04E-10 | -0,31 | 6,50E-05 |
| ENSG00000105618 | <i>PRPF31</i> | -0,42 | 4,52E-03 | -0,58 | 6,61E-05 |
| ENSG00000113368 | <i>LMNB1</i> | -0,89 | 1,18E-26 | -0,35 | 6,67E-05 |
| ENSG00000189343 | <i>RPS2P46</i> | -0,77 | 9,99E-14 | -0,43 | 6,86E-05 |
| ENSG00000181873 | <i>C1ORF69</i> | -0,52 | 2,58E-03 | -0,67 | 6,94E-05 |
| ENSG00000028310 | <i>BRD9</i> | -0,39 | 1,49E-03 | -0,48 | 6,96E-05 |
| ENSG00000153107 | <i>ANAPC1</i> | -0,63 | 1,37E-12 | -0,37 | 7,65E-05 |
| ENSG00000146802 | <i>TMEM168</i> | -1,05 | 1,10E-12 | -0,59 | 7,71E-05 |
| ENSG00000151208 | <i>DLG5</i> | -0,61 | 7,23E-10 | -0,40 | 7,77E-05 |
| ENSG00000100425 | <i>BRD1</i> | -0,37 | 1,74E-03 | -0,45 | 7,89E-05 |
| ENSG00000136758 | <i>YME1L1</i> | -1,22 | 1,46E-38 | -0,39 | 7,97E-05 |
| ENSG00000137312 | <i>FLOT1</i> | -1,28 | 8,00E-60 | -0,32 | 8,05E-05 |
| ENSG00000168496 | <i>FEN1</i> | -0,46 | 3,78E-08 | -0,34 | 8,06E-05 |
| ENSG00000136731 | <i>UGGT1</i> | -0,41 | 6,15E-07 | -0,33 | 8,08E-05 |
| ENSG00000136478 | <i>TEX2</i> | -0,64 | 5,83E-09 | -0,44 | 8,14E-05 |
| ENSG00000080608 | <i>KIAA0020</i> | -0,98 | 4,15E-18 | -0,46 | 8,42E-05 |
| ENSG00000023445 | <i>BIRC3</i> | -1,61 | 6,73E-21 | -0,68 | 8,45E-05 |
| ENSG00000198369 | <i>SPRED2</i> | -0,54 | 8,94E-09 | -0,38 | 8,46E-05 |
| ENSG00000163605 | <i>PPP4R2</i> | -1,10 | 7,76E-27 | -0,42 | 8,50E-05 |
| ENSG00000130726 | <i>TRIM28</i> | -0,46 | 8,10E-12 | -0,27 | 8,80E-05 |
| ENSG00000112365 | <i>ZBTB24</i> | -0,68 | 1,48E-05 | -0,62 | 9,04E-05 |
| ENSG00000160691 | <i>SHC1</i> | -1,00 | 2,97E-42 | -0,30 | 9,43E-05 |
| ENSG00000163584 | <i>RPL22L1</i> | -1,26 | 6,58E-20 | -0,54 | 1,08E-04 |

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000188971 | / | -0,45 | 5,94E-04 | -0,50 | 1,09E-04 |
| ENSG00000105568 | <i>PPP2R1A</i> | -0,80 | 1,98E-21 | -0,34 | 1,09E-04 |
| ENSG00000104356 | <i>POP1</i> | -0,90 | 4,90E-11 | -0,53 | 1,13E-04 |
| ENSG00000124783 | <i>SSR1</i> | -1,45 | 7,96E-68 | -0,34 | 1,13E-04 |
| ENSG00000198924 | <i>DCLRE1A</i> | -0,57 | 3,49E-05 | -0,53 | 1,15E-04 |
| ENSG00000172716 | <i>SLFN11</i> | -0,95 | 1,45E-04 | -0,96 | 1,20E-04 |
| ENSG00000047644 | <i>WWC3</i> | -0,99 | 7,71E-14 | -0,52 | 1,22E-04 |
| ENSG00000198700 | <i>IPO9</i> | -0,28 | 1,13E-04 | -0,28 | 1,25E-04 |
| ENSG00000184220 | <i>C3ORF26</i> | -0,81 | 1,78E-06 | -0,66 | 1,29E-04 |
| ENSG00000116251 | <i>RPL22</i> | -0,57 | 6,54E-09 | -0,38 | 1,41E-04 |
| ENSG00000095139 | <i>ARCN1</i> | -0,26 | 2,06E-03 | -0,31 | 1,48E-04 |
| ENSG00000155438 | <i>MKI67IP</i> | -0,59 | 2,94E-09 | -0,39 | 1,48E-04 |
| ENSG00000115363 | <i>FAM176A</i> | -0,65 | 1,27E-03 | -0,75 | 1,59E-04 |
| ENSG00000108312 | <i>UBTF</i> | -0,48 | 1,36E-09 | -0,31 | 1,62E-04 |
| ENSG00000184009 | <i>ACTG1</i> | -0,47 | 8,48E-14 | -0,25 | 1,63E-04 |
| ENSG00000165097 | <i>KDM1B</i> | -1,73 | 1,05E-41 | -0,48 | 1,63E-04 |
| ENSG00000112306 | <i>RPS12</i> | -0,84 | 1,71E-28 | -0,31 | 1,64E-04 |
| ENSG00000137285 | <i>TUBB2B</i> | -0,63 | 4,24E-08 | -0,44 | 1,66E-04 |
| ENSG00000125944 | <i>HNRNPR</i> | -0,74 | 8,33E-21 | -0,31 | 1,69E-04 |
| ENSG00000135473 | <i>PAN2</i> | -0,47 | 3,21E-03 | -0,59 | 1,71E-04 |
| ENSG00000170903 | <i>KIAA1826</i> | -1,24 | 1,58E-20 | -0,51 | 1,73E-04 |
| ENSG00000161547 | <i>SFRS2</i> | -0,47 | 1,82E-07 | -0,35 | 1,81E-04 |
| ENSG00000159461 | <i>AMFR</i> | -0,36 | 1,91E-03 | -0,43 | 1,84E-04 |
| ENSG00000135213 | <i>LOC729316</i> | -0,77 | 5,11E-14 | -0,40 | 1,84E-04 |
| ENSG00000005100 | <i>DHX33</i> | -0,82 | 3,05E-15 | -0,40 | 1,92E-04 |
| ENSG00000172197 | <i>MBOAT1</i> | -0,95 | 6,56E-06 | -0,79 | 2,10E-04 |
| ENSG00000167378 | <i>IRGQ</i> | -0,52 | 3,39E-04 | -0,53 | 2,11E-04 |
| ENSG00000137177 | <i>KIF13A</i> | -0,69 | 6,08E-19 | -0,30 | 2,17E-04 |
| ENSG00000121774 | <i>KHDRBS1</i> | -0,37 | 3,40E-07 | -0,27 | 2,20E-04 |
| ENSG00000131153 | <i>GINS2</i> | -0,55 | 4,32E-04 | -0,57 | 2,23E-04 |
| ENSG00000119203 | <i>CPSF3</i> | -0,39 | 2,52E-03 | -0,46 | 2,25E-04 |
| ENSG00000178996 | <i>SNX18</i> | -1,01 | 1,49E-24 | -0,38 | 2,31E-04 |

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000182606 | <i>TRAK1</i> | -0,37 | 4,97E-03 | -0,47 | 2,32E-04 |
| ENSG00000157540 | <i>DYRK1A</i> | -0,49 | 1,82E-06 | -0,38 | 2,32E-04 |
| ENSG00000263899 | / | -1,16 | 7,77E-09 | -0,74 | 2,40E-04 |
| ENSG00000128641 | <i>MYO1B</i> | -0,28 | 2,21E-03 | -0,33 | 2,40E-04 |
| ENSG00000136026 | <i>CKAP4</i> | -1,61 | 8,97E-56 | -0,39 | 2,40E-04 |
| ENSG00000146263 | <i>C6ORF167</i> | -0,50 | 5,32E-05 | -0,46 | 2,48E-04 |
| ENSG00000105229 | <i>PIAS4</i> | -0,71 | 4,62E-06 | -0,57 | 2,49E-04 |
| ENSG00000077238 | <i>IL4R</i> | -0,44 | 1,51E-04 | -0,42 | 2,55E-04 |
| ENSG00000100836 | <i>PABPN1</i> | -0,62 | 1,12E-06 | -0,47 | 2,55E-04 |
| ENSG00000100281 | <i>HMGXB4</i> | -0,87 | 3,25E-14 | -0,43 | 2,58E-04 |
| ENSG00000198218 | <i>QRICH1</i> | -0,32 | 8,12E-04 | -0,34 | 2,69E-04 |
| ENSG00000100426 | <i>ZBED4</i> | -0,98 | 2,11E-18 | -0,42 | 2,73E-04 |
| ENSG00000141905 | <i>NFIC</i> | -0,51 | 1,26E-04 | -0,49 | 2,84E-04 |
| ENSG00000157456 | <i>CCNB2</i> | -0,36 | 1,21E-04 | -0,34 | 2,86E-04 |
| ENSG00000119682 | <i>KIAA0317</i> | -0,62 | 1,61E-08 | -0,41 | 2,94E-04 |
| ENSG00000166526 | <i>ZNF3</i> | -1,17 | 7,67E-23 | -0,44 | 3,09E-04 |
| ENSG00000115963 | <i>RND3</i> | -0,99 | 3,17E-28 | -0,34 | 3,18E-04 |
| ENSG00000198860 | <i>TSEN15</i> | -0,46 | 1,73E-04 | -0,44 | 3,18E-04 |
| ENSG00000126773 | <i>C14ORF135</i> | -0,33 | 6,22E-05 | -0,30 | 3,20E-04 |
| ENSG00000055163 | <i>CYFIP2</i> | -1,14 | 3,97E-09 | -0,70 | 3,27E-04 |
| ENSG00000136982 | <i>DSCC1</i> | -1,02 | 5,19E-12 | -0,54 | 3,33E-04 |
| ENSG00000066084 | <i>DIP2B</i> | -0,68 | 3,60E-18 | -0,30 | 3,36E-04 |
| ENSG00000116128 | <i>BCL9</i> | -0,45 | 5,83E-04 | -0,47 | 3,40E-04 |
| ENSG00000075275 | <i>CELSR1</i> | -0,73 | 9,76E-19 | -0,31 | 3,42E-04 |
| ENSG00000171208 | <i>NETO2</i> | -0,86 | 2,67E-09 | -0,52 | 3,44E-04 |
| ENSG00000188725 | <i>C5ORF43</i> | -0,52 | 2,33E-06 | -0,40 | 3,47E-04 |
| ENSG00000151692 | <i>RNF144A</i> | -0,49 | 9,14E-03 | -0,66 | 3,48E-04 |
| ENSG00000101040 | <i>ZMYND8</i> | -0,76 | 3,72E-19 | -0,32 | 3,49E-04 |
| ENSG00000111981 | <i>ULBP1</i> | -1,65 | 1,83E-12 | -0,83 | 3,62E-04 |
| ENSG00000145220 | <i>LYAR</i> | -0,96 | 3,18E-13 | -0,49 | 3,62E-04 |
| ENSG00000090621 | <i>PABPC4</i> | -0,91 | 8,53E-23 | -0,35 | 3,72E-04 |
| ENSG00000178921 | <i>PFAS</i> | -0,66 | 1,22E-14 | -0,32 | 3,77E-04 |

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| ENSG00000103187 | <i>COTL1</i> | -1,04 | 1,54E-13 | -0,51 | 3,85E-04 |
| ENSG00000100297 | <i>MCM5</i> | -0,43 | 5,44E-07 | -0,31 | 3,85E-04 |
| ENSG00000170471 | <i>RALGAPB</i> | -0,28 | 1,22E-03 | -0,31 | 3,85E-04 |
| ENSG00000101361 | <i>NOP56</i> | -0,51 | 2,00E-12 | -0,27 | 3,87E-04 |
| ENSG00000103342 | <i>GSPT1</i> | -0,74 | 1,58E-23 | -0,28 | 3,88E-04 |
| ENSG00000129250 | <i>KIF1C</i> | -1,31 | 6,37E-86 | -0,25 | 4,01E-04 |
| ENSG00000166562 | <i>SEC11C</i> | -1,07 | 1,53E-08 | -0,68 | 4,29E-04 |
| ENSG00000186575 | <i>NF2</i> | -1,49 | 9,05E-36 | -0,43 | 4,45E-04 |
| ENSG00000164741 | <i>DLC1</i> | -0,52 | 2,84E-11 | -0,28 | 4,46E-04 |
| ENSG00000139350 | <i>NEDD1</i> | -0,73 | 2,09E-06 | -0,55 | 4,46E-04 |
| ENSG00000162545 | <i>CAMK2N1</i> | -0,85 | 3,77E-08 | -0,55 | 4,47E-04 |
| ENSG00000111605 | <i>CPSF6</i> | -0,33 | 6,53E-05 | -0,30 | 4,62E-04 |
| ENSG00000007168 | <i>PAFAH1B1</i> | -0,34 | 6,37E-06 | -0,27 | 4,63E-04 |
| ENSG00000165724 | <i>ZMYND19</i> | -0,64 | 1,56E-04 | -0,59 | 4,66E-04 |
| ENSG00000235499 | <i>AC073046.25</i> | -0,83 | 5,36E-03 | -1,02 | 4,75E-04 |
| ENSG00000104064 | <i>GABPB1</i> | -0,55 | 5,26E-05 | -0,48 | 4,83E-04 |
| ENSG00000189221 | <i>MAOA</i> | -0,47 | 2,46E-03 | -0,53 | 4,92E-04 |
| ENSG00000188021 | <i>UBQLN2</i> | -1,07 | 9,28E-13 | -0,53 | 4,92E-04 |
| ENSG00000161638 | <i>ITGA5</i> | -0,75 | 2,42E-12 | -0,39 | 5,17E-04 |
| ENSG00000124422 | <i>USP22</i> | -0,90 | 3,81E-33 | -0,28 | 5,20E-04 |
| ENSG00000166147 | <i>FBN1</i> | -0,58 | 1,51E-06 | -0,42 | 5,24E-04 |
| ENSG00000168993 | <i>CPLX1</i> | -0,94 | 4,90E-03 | -1,14 | 5,29E-04 |
| ENSG00000101294 | <i>HM13</i> | -0,25 | 1,17E-03 | -0,27 | 5,51E-04 |
| ENSG00000110367 | <i>DDX6</i> | -0,37 | 1,09E-04 | -0,33 | 5,52E-04 |
| ENSG00000100906 | <i>NFKBIA</i> | -0,49 | 7,42E-05 | -0,43 | 5,57E-04 |
| ENSG00000135372 | <i>NAT10</i> | -1,11 | 6,34E-29 | -0,36 | 5,60E-04 |
| ENSG00000080819 | <i>CPOX</i> | -0,67 | 1,75E-07 | -0,45 | 5,60E-04 |
| ENSG00000187735 | <i>TCEA1</i> | -0,47 | 9,25E-08 | -0,32 | 5,63E-04 |
| ENSG00000113296 | <i>THBS4</i> | -0,94 | 2,85E-05 | -0,78 | 5,63E-04 |
| ENSG00000101109 | <i>STK4</i> | -0,58 | 8,27E-09 | -0,36 | 5,65E-04 |
| ENSG00000104635 | <i>SLC39A14</i> | -0,95 | 9,84E-32 | -0,30 | 5,76E-04 |
| ENSG00000131653 | <i>TRAF7</i> | -0,81 | 1,79E-14 | -0,38 | 5,81E-04 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000118707 | <i>TGIF2</i> | -1,16 | 1,70E-34 | -0,34 | 5,81E-04 |
| ENSG00000198885 | <i>ITPRIPL1</i> | -0,90 | 3,95E-05 | -0,76 | 5,83E-04 |
| ENSG00000008988 | <i>RPS20</i> | -0,55 | 1,36E-12 | -0,28 | 6,01E-04 |
| ENSG00000143761 | <i>ARF1</i> | -0,38 | 3,68E-08 | -0,25 | 6,04E-04 |
| ENSG00000196182 | <i>STK40</i> | -1,05 | 4,55E-22 | -0,38 | 6,13E-04 |
| ENSG00000166233 | <i>ARIH1</i> | -0,66 | 1,12E-11 | -0,35 | 6,19E-04 |
| ENSG00000166454 | <i>ATMIN</i> | -0,42 | 1,09E-03 | -0,43 | 6,31E-04 |
| ENSG00000124920 | <i>C11ORF9</i> | -0,76 | 1,46E-20 | -0,30 | 6,34E-04 |
| ENSG00000183530 | <i>C22ORF30</i> | -0,42 | 1,91E-06 | -0,31 | 6,50E-04 |
| ENSG00000198053 | <i>SIRPA</i> | -1,26 | 2,44E-05 | -1,03 | 6,63E-04 |
| ENSG00000160710 | <i>ADAR</i> | -0,25 | 9,02E-04 | -0,26 | 6,65E-04 |
| ENSG00000107566 | <i>ERLIN1</i> | -0,95 | 4,50E-21 | -0,36 | 6,74E-04 |
| ENSG00000131899 | <i>LLGL1</i> | -0,36 | 1,04E-03 | -0,38 | 6,87E-04 |
| ENSG00000168209 | <i>DDIT4</i> | -1,29 | 1,89E-08 | -0,79 | 7,10E-04 |
| ENSG00000163362 | <i>C10RF106</i> | -0,29 | 7,91E-03 | -0,36 | 7,13E-04 |
| ENSG00000138346 | <i>DNA2</i> | -0,40 | 8,46E-03 | -0,50 | 7,19E-04 |
| ENSG00000255529 | <i>POLR2M</i> | -0,42 | 3,02E-03 | -0,47 | 7,38E-04 |
| ENSG00000142945 | <i>KIF2C</i> | -0,80 | 6,35E-20 | -0,31 | 7,49E-04 |
| ENSG00000174903 | <i>RAB1B</i> | -0,66 | 9,47E-10 | -0,38 | 7,54E-04 |
| ENSG00000197472 | <i>ZNF695</i> | -0,69 | 3,60E-04 | -0,65 | 7,63E-04 |
| ENSG00000152455 | <i>SUV39H2</i> | -0,47 | 1,43E-03 | -0,49 | 7,63E-04 |
| ENSG00000160888 | <i>IER2</i> | -0,68 | 5,84E-07 | -0,47 | 7,77E-04 |
| ENSG00000124207 | <i>CSE1L</i> | -0,66 | 1,10E-14 | -0,30 | 7,91E-04 |
| ENSG00000160685 | <i>ZBTB7B</i> | -0,74 | 7,85E-13 | -0,36 | 8,16E-04 |
| ENSG00000100029 | <i>PES1</i> | -1,05 | 1,54E-33 | -0,31 | 8,17E-04 |
| ENSG00000047315 | <i>POLR2B</i> | -0,59 | 6,88E-17 | -0,25 | 8,38E-04 |
| ENSG00000253729 | <i>PRKDC</i> | -0,53 | 3,21E-12 | -0,27 | 8,60E-04 |
| ENSG00000196498 | <i>NCOR2</i> | -1,43 | 8,09E-38 | -0,38 | 8,62E-04 |
| ENSG00000151718 | <i>WWC2</i> | -0,30 | 5,82E-04 | -0,29 | 8,69E-04 |
| ENSG00000146674 | <i>IGFBP3</i> | -1,21 | 3,36E-29 | -0,37 | 8,77E-04 |
| ENSG00000163755 | <i>HPS3</i> | -0,54 | 2,90E-05 | -0,44 | 8,97E-04 |
| ENSG00000072501 | <i>SMC1A</i> | -1,47 | 4,06E-49 | -0,36 | 9,03E-04 |

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|-----------------|------------------|-------|----------|-------|----------|
| ENSG00000133112 | <i>LOC285741</i> | -0,51 | 1,46E-13 | -0,24 | 9,67E-04 |
| ENSG00000166986 | <i>MARS</i> | -0,88 | 1,84E-26 | -0,29 | 9,67E-04 |
| ENSG00000137221 | <i>TJAP1</i> | -0,45 | 8,15E-05 | -0,39 | 9,70E-04 |
| ENSG00000160124 | <i>CCDC58</i> | -0,68 | 1,66E-06 | -0,48 | 9,81E-04 |
| ENSG00000228278 | <i>ORM2</i> | -1,15 | 1,53E-11 | -0,58 | 9,81E-04 |
| ENSG00000129810 | <i>SGOL1</i> | -0,56 | 2,60E-05 | -0,45 | 9,89E-04 |
| ENSG00000120705 | <i>ETF1</i> | -0,57 | 6,53E-15 | -0,26 | 9,99E-04 |
| ENSG00000100603 | <i>SNW1</i> | -0,32 | 5,13E-03 | -0,36 | 1,02E-03 |
| ENSG00000103275 | <i>UBE2I</i> | -0,64 | 7,48E-07 | -0,43 | 1,03E-03 |
| ENSG00000153207 | <i>AHCTF1</i> | -0,30 | 1,80E-03 | -0,31 | 1,04E-03 |
| ENSG00000138166 | <i>DUSP5</i> | -2,04 | 2,50E-34 | -0,54 | 1,05E-03 |
| ENSG00000119231 | <i>SENP5</i> | -0,30 | 4,93E-03 | -0,35 | 1,06E-03 |
| ENSG00000117133 | <i>RPF1</i> | -0,48 | 4,15E-04 | -0,45 | 1,06E-03 |
| ENSG00000092758 | <i>COL9A3</i> | -1,07 | 1,66E-07 | -0,68 | 1,08E-03 |
| ENSG00000163159 | <i>VPS72</i> | -0,65 | 6,90E-10 | -0,36 | 1,08E-03 |
| ENSG00000136518 | <i>ACTL6A</i> | -0,33 | 1,05E-04 | -0,28 | 1,08E-03 |
| ENSG00000116127 | <i>ALMS1</i> | -1,57 | 6,23E-27 | -0,49 | 1,09E-03 |
| ENSG00000182319 | <i>SGK223</i> | -0,68 | 7,17E-07 | -0,46 | 1,10E-03 |
| ENSG00000120526 | <i>NUDCD1</i> | -0,45 | 6,54E-05 | -0,38 | 1,13E-03 |
| ENSG00000132164 | <i>SLC6A11</i> | -0,90 | 1,97E-09 | -0,50 | 1,14E-03 |
| ENSG00000021776 | <i>AQR</i> | -0,45 | 1,32E-04 | -0,39 | 1,16E-03 |
| ENSG00000172432 | <i>GTPBP2</i> | -0,48 | 2,80E-05 | -0,38 | 1,18E-03 |
| ENSG00000187231 | <i>SESTD1</i> | -0,48 | 6,82E-09 | -0,28 | 1,18E-03 |
| ENSG00000262944 | / | -0,60 | 8,71E-04 | -0,59 | 1,19E-03 |
| ENSG00000180535 | <i>BHLHA15</i> | -0,94 | 7,16E-03 | -1,11 | 1,21E-03 |
| ENSG00000142186 | <i>SCYL1</i> | -0,39 | 2,35E-04 | -0,35 | 1,21E-03 |
| ENSG00000196781 | <i>LOC645381</i> | -0,22 | 8,31E-03 | -0,27 | 1,22E-03 |
| ENSG00000103194 | <i>USP10</i> | -0,36 | 1,35E-04 | -0,31 | 1,22E-03 |
| ENSG00000167395 | <i>ZNF646</i> | -0,31 | 9,32E-03 | -0,38 | 1,25E-03 |
| ENSG00000100941 | <i>PNN</i> | -0,37 | 2,76E-05 | -0,29 | 1,27E-03 |
| ENSG00000150961 | <i>SEC24D</i> | -0,82 | 1,23E-16 | -0,34 | 1,27E-03 |
| ENSG00000162039 | <i>C16ORF73</i> | -0,76 | 3,65E-06 | -0,54 | 1,32E-03 |

Hepatology

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|-----------------|-----------------|-------|----------|-------|----------|
| ENSG00000111266 | <i>DUSP16</i> | -0,58 | 1,90E-07 | -0,37 | 1,33E-03 |
| ENSG00000133056 | <i>PIK3C2B</i> | -0,54 | 5,36E-07 | -0,36 | 1,34E-03 |
| ENSG00000150093 | <i>ITGB1</i> | -0,56 | 2,24E-14 | -0,25 | 1,35E-03 |
| ENSG00000177731 | <i>FLII</i> | -0,30 | 1,54E-04 | -0,26 | 1,35E-03 |
| ENSG00000115163 | <i>CENPA</i> | -0,61 | 2,65E-04 | -0,54 | 1,35E-03 |
| ENSG00000104331 | <i>IMPAD1</i> | -0,45 | 2,16E-07 | -0,29 | 1,35E-03 |
| ENSG00000151247 | <i>EIF4E</i> | -0,33 | 1,97E-03 | -0,34 | 1,37E-03 |
| ENSG00000133740 | <i>E2F5</i> | -0,57 | 5,11E-03 | -0,64 | 1,39E-03 |
| ENSG00000137073 | <i>UBAP2</i> | -0,38 | 4,73E-05 | -0,31 | 1,39E-03 |
| ENSG00000011426 | <i>ANLN</i> | -0,39 | 2,52E-05 | -0,30 | 1,40E-03 |
| ENSG00000162980 | <i>ARL5A</i> | -1,17 | 2,76E-28 | -0,36 | 1,41E-03 |
| ENSG00000101407 | <i>KIAA0406</i> | -0,95 | 5,29E-24 | -0,32 | 1,41E-03 |
| ENSG00000089876 | <i>DHX32</i> | -0,80 | 3,46E-07 | -0,51 | 1,45E-03 |
| ENSG00000115241 | <i>PPM1G</i> | -0,41 | 2,79E-06 | -0,29 | 1,47E-03 |
| ENSG00000116478 | <i>HDAC1</i> | -0,52 | 2,42E-10 | -0,27 | 1,59E-03 |
| ENSG00000143799 | <i>PARP1</i> | -0,86 | 3,85E-28 | -0,27 | 1,60E-03 |
| ENSG00000183520 | <i>UTP11L</i> | -0,64 | 1,47E-08 | -0,37 | 1,62E-03 |
| ENSG00000077942 | <i>FBLN1</i> | -0,31 | 3,08E-05 | -0,24 | 1,65E-03 |
| ENSG00000213699 | <i>C2ORF18</i> | -0,62 | 1,13E-07 | -0,38 | 1,69E-03 |
| ENSG00000100225 | <i>FBXO7</i> | -0,27 | 2,85E-03 | -0,28 | 1,71E-03 |
| ENSG00000153574 | <i>RPIA</i> | -0,53 | 1,38E-03 | -0,51 | 1,76E-03 |
| ENSG00000136295 | <i>TTYH3</i> | -0,27 | 3,71E-03 | -0,29 | 1,76E-03 |
| ENSG00000122565 | <i>CBX3</i> | -0,27 | 2,19E-04 | -0,23 | 1,77E-03 |
| ENSG00000129911 | <i>KLF16</i> | -0,51 | 4,86E-03 | -0,57 | 1,77E-03 |
| ENSG00000165732 | <i>DDX21</i> | -0,82 | 6,16E-26 | -0,26 | 1,78E-03 |
| ENSG00000103365 | <i>GGA2</i> | -0,25 | 1,43E-03 | -0,24 | 1,85E-03 |
| ENSG00000185104 | <i>FAF1</i> | -0,35 | 3,12E-03 | -0,37 | 1,88E-03 |
| ENSG00000116991 | <i>SIPA1L2</i> | -1,77 | 1,80E-40 | -0,41 | 1,88E-03 |
| ENSG00000172216 | <i>CEBPB</i> | -0,76 | 8,86E-04 | -0,71 | 1,92E-03 |
| ENSG00000125885 | <i>MCM8</i> | -0,76 | 1,38E-12 | -0,35 | 1,93E-03 |
| ENSG00000153113 | <i>CAST</i> | -0,30 | 2,15E-04 | -0,26 | 1,99E-03 |
| ENSG00000178999 | <i>AURKB</i> | -0,37 | 3,86E-05 | -0,29 | 1,99E-03 |

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| ENSG00000153310 | <i>FAM49B</i> | -0,48 | 1,64E-08 | -0,27 | 2,00E-03 |
| ENSG00000167005 | <i>NUDT21</i> | -0,30 | 1,42E-03 | -0,30 | 2,02E-03 |
| ENSG00000086598 | <i>TMED2</i> | -0,29 | 1,86E-04 | -0,25 | 2,04E-03 |
| ENSG00000213064 | <i>SFT2D2</i> | -0,70 | 2,20E-06 | -0,46 | 2,06E-03 |
| ENSG00000135097 | <i>MSI1</i> | -1,91 | 2,10E-24 | -0,57 | 2,11E-03 |
| ENSG00000189410 | <i>SH2D5</i> | -0,65 | 6,75E-03 | -0,73 | 2,12E-03 |
| ENSG00000113083 | <i>LOX</i> | -1,48 | 3,08E-25 | -0,45 | 2,16E-03 |
| ENSG00000128050 | <i>PAICS</i> | -0,80 | 4,04E-37 | -0,21 | 2,17E-03 |
| ENSG00000105173 | <i>CCNE1</i> | -0,61 | 1,35E-03 | -0,58 | 2,20E-03 |
| ENSG00000147905 | <i>ZCCHC7</i> | -0,98 | 1,12E-07 | -0,58 | 2,22E-03 |
| ENSG00000173890 | <i>GPR160</i> | -0,41 | 8,64E-03 | -0,46 | 2,24E-03 |
| ENSG00000130723 | <i>BAT2L1</i> | -0,35 | 1,53E-06 | -0,24 | 2,25E-03 |
| ENSG00000100749 | <i>VRK1</i> | -0,55 | 5,15E-05 | -0,42 | 2,27E-03 |
| ENSG00000086589 | <i>RBM22</i> | -0,37 | 3,38E-03 | -0,38 | 2,30E-03 |
| ENSG00000149591 | <i>TAGLN</i> | -0,62 | 7,05E-04 | -0,56 | 2,32E-03 |
| ENSG00000128849 | <i>CGNL1</i> | -1,45 | 1,25E-23 | -0,45 | 2,35E-03 |
| ENSG00000071994 | <i>PDCD2</i> | -0,39 | 8,64E-04 | -0,36 | 2,35E-03 |
| ENSG00000118181 | <i>RPS25</i> | -0,67 | 3,23E-13 | -0,30 | 2,36E-03 |
| ENSG00000105983 | <i>LMBR1</i> | -0,68 | 1,94E-12 | -0,31 | 2,36E-03 |
| ENSG00000145781 | <i>COMMD10</i> | -0,67 | 2,34E-03 | -0,66 | 2,38E-03 |
| ENSG00000136450 | <i>SFRS1</i> | -0,56 | 1,09E-14 | -0,23 | 2,38E-03 |
| ENSG00000145365 | <i>TIFA</i> | -0,65 | 1,80E-03 | -0,64 | 2,43E-03 |
| ENSG00000100316 | <i>LOC653881</i> | -0,80 | 1,12E-30 | -0,23 | 2,46E-03 |
| ENSG00000048828 | <i>FAM120A</i> | -0,37 | 1,48E-05 | -0,27 | 2,49E-03 |
| ENSG00000101158 | <i>TH1L</i> | -0,35 | 9,76E-05 | -0,28 | 2,50E-03 |
| ENSG00000196588 | <i>MKL1</i> | -1,22 | 5,24E-26 | -0,37 | 2,52E-03 |
| ENSG00000146410 | <i>FAM54A</i> | -0,53 | 2,01E-03 | -0,52 | 2,53E-03 |
| ENSG00000102317 | <i>RBM3</i> | -0,75 | 1,31E-14 | -0,31 | 2,54E-03 |
| ENSG00000187109 | <i>NAP1L1</i> | -1,37 | 1,61E-66 | -0,26 | 2,59E-03 |
| ENSG00000144724 | <i>PTPRG</i> | -0,81 | 2,38E-15 | -0,32 | 2,64E-03 |
| ENSG00000163807 | <i>KIAA1143</i> | -0,56 | 5,80E-06 | -0,38 | 2,67E-03 |
| ENSG00000022567 | <i>SLC45A4</i> | -0,74 | 1,78E-13 | -0,32 | 2,67E-03 |

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| ENSG00000176208 | <i>ATAD5</i> | -0,59 | 1,39E-04 | -0,47 | 2,69E-03 |
| ENSG00000156374 | <i>PCGF6</i> | -0,56 | 2,65E-03 | -0,56 | 2,69E-03 |
| ENSG00000171262 | <i>FAM98B</i> | -0,64 | 1,97E-08 | -0,36 | 2,69E-03 |
| ENSG00000113758 | <i>DBN1</i> | -0,40 | 1,61E-06 | -0,26 | 2,71E-03 |
| ENSG00000204356 | <i>RDBP</i> | -0,39 | 2,36E-05 | -0,28 | 2,73E-03 |
| ENSG00000164818 | <i>HEATR2</i> | -0,38 | 2,31E-04 | -0,32 | 2,74E-03 |
| ENSG00000101966 | <i>XIAP</i> | -0,72 | 3,28E-09 | -0,38 | 2,77E-03 |
| ENSG00000122406 | <i>RPL5</i> | -0,75 | 1,00E-30 | -0,21 | 2,80E-03 |
| ENSG00000198791 | <i>CNOT7</i> | -0,40 | 4,31E-06 | -0,27 | 2,80E-03 |
| ENSG00000088247 | <i>KHSRP</i> | -0,26 | 7,00E-04 | -0,23 | 2,95E-03 |
| ENSG00000170638 | <i>TRABD</i> | -0,44 | 9,08E-03 | -0,50 | 2,97E-03 |
| ENSG00000101266 | <i>CSNK2A1</i> | -0,91 | 2,02E-33 | -0,24 | 3,00E-03 |
| ENSG00000111596 | <i>CNOT2</i> | -0,53 | 5,63E-08 | -0,30 | 3,00E-03 |
| ENSG00000177733 | <i>HNRNPA0</i> | -0,58 | 6,90E-08 | -0,33 | 3,00E-03 |
| ENSG00000131873 | <i>CHSY1</i> | -1,48 | 3,32E-07 | -0,87 | 3,10E-03 |
| ENSG00000146909 | <i>NOM1</i> | -0,49 | 2,86E-05 | -0,36 | 3,11E-03 |
| ENSG00000142676 | <i>RPL11</i> | -0,44 | 4,80E-09 | -0,23 | 3,12E-03 |
| ENSG00000149273 | <i>RPS3</i> | -0,53 | 1,08E-09 | -0,28 | 3,19E-03 |
| ENSG00000146574 | <i>C7ORF28A</i> | -0,35 | 8,40E-03 | -0,38 | 3,19E-03 |
| ENSG00000092969 | <i>TGFB2</i> | -1,02 | 1,48E-22 | -0,32 | 3,24E-03 |
| ENSG00000112081 | <i>SFRS3</i> | -0,44 | 8,23E-11 | -0,21 | 3,28E-03 |
| ENSG00000100030 | <i>MAPK1</i> | -0,48 | 7,88E-09 | -0,26 | 3,30E-03 |
| ENSG00000108551 | <i>RASD1</i> | -0,58 | 6,97E-03 | -0,62 | 3,32E-03 |
| ENSG00000005007 | <i>UPF1</i> | -0,32 | 3,50E-04 | -0,27 | 3,33E-03 |
| ENSG00000130294 | <i>KIF1A</i> | -0,85 | 4,65E-07 | -0,51 | 3,35E-03 |
| ENSG00000104320 | <i>NBN</i> | -0,36 | 1,73E-03 | -0,33 | 3,43E-03 |
| ENSG00000203875 | <i>SNHG5</i> | -0,51 | 7,77E-03 | -0,55 | 3,43E-03 |
| ENSG00000136940 | <i>PDCL</i> | -0,74 | 9,48E-09 | -0,39 | 3,47E-03 |
| ENSG00000140474 | <i>ULK3</i> | -0,40 | 4,20E-03 | -0,41 | 3,49E-03 |
| ENSG00000103429 | <i>BFAR</i> | -0,29 | 4,16E-03 | -0,30 | 3,56E-03 |
| ENSG00000013810 | <i>TACC3</i> | -0,48 | 2,98E-08 | -0,26 | 3,59E-03 |
| ENSG00000116786 | <i>PLEKHM2</i> | -0,34 | 6,01E-03 | -0,36 | 3,61E-03 |

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| ENSG00000159921 | <i>GNE</i> | -0,38 | 8,13E-04 | -0,33 | 3,68E-03 |
| ENSG00000148426 | <i>C10ORF47</i> | -0,54 | 3,94E-03 | -0,54 | 3,69E-03 |
| ENSG00000089063 | <i>C20ORF30</i> | -0,25 | 3,46E-03 | -0,25 | 3,71E-03 |
| ENSG00000116539 | <i>ASH1L</i> | -0,71 | 4,30E-17 | -0,26 | 3,72E-03 |
| ENSG00000152518 | <i>ZFP36L2</i> | -0,46 | 3,10E-06 | -0,30 | 3,73E-03 |
| ENSG00000145362 | <i>ANK2</i> | -0,59 | 3,88E-07 | -0,35 | 3,74E-03 |
| ENSG00000205937 | <i>LOC643446</i> | -0,34 | 2,10E-03 | -0,32 | 3,74E-03 |
| ENSG00000171517 | <i>LPAR3</i> | -1,18 | 1,47E-08 | -0,62 | 3,77E-03 |
| ENSG00000165802 | <i>NELF</i> | -0,93 | 1,24E-19 | -0,31 | 3,82E-03 |
| ENSG00000137409 | <i>MTCH1</i> | -0,36 | 5,66E-07 | -0,22 | 3,93E-03 |
| ENSG00000167118 | <i>URM1</i> | -0,67 | 3,16E-08 | -0,36 | 3,96E-03 |
| ENSG00000177954 | <i>RPS27</i> | -0,54 | 4,57E-13 | -0,23 | 4,05E-03 |
| ENSG00000105810 | <i>CDK6</i> | -1,26 | 1,15E-54 | -0,25 | 4,19E-03 |
| ENSG00000156795 | <i>WDYHV1</i> | -0,99 | 3,39E-07 | -0,57 | 4,26E-03 |
| ENSG00000188522 | <i>FAM83G</i> | -0,42 | 2,66E-06 | -0,27 | 4,33E-03 |
| ENSG00000100479 | <i>POLE2</i> | -0,59 | 2,45E-03 | -0,56 | 4,36E-03 |
| ENSG00000132640 | <i>BTBD3</i> | -1,18 | 9,53E-26 | -0,34 | 4,41E-03 |
| ENSG00000104299 | <i>INTS9</i> | -0,48 | 4,79E-03 | -0,48 | 4,49E-03 |
| ENSG00000137807 | <i>KIF23</i> | -0,41 | 7,95E-05 | -0,30 | 4,61E-03 |
| ENSG00000116809 | <i>ZBTB17</i> | -0,70 | 6,18E-07 | -0,41 | 4,69E-03 |
| ENSG00000169908 | <i>TM4SF1</i> | -1,49 | 1,80E-05 | -1,01 | 4,74E-03 |
| ENSG00000115946 | <i>PNO1</i> | -0,74 | 1,22E-11 | -0,32 | 4,80E-03 |
| ENSG00000143368 | <i>SF3B4</i> | -0,48 | 3,82E-08 | -0,26 | 4,80E-03 |
| ENSG00000183955 | <i>SETD8</i> | -0,62 | 5,67E-08 | -0,34 | 4,99E-03 |
| ENSG00000011275 | <i>RNF216</i> | -0,59 | 1,80E-11 | -0,26 | 5,05E-03 |
| ENSG00000010165 | <i>METTL13</i> | -0,47 | 7,06E-08 | -0,26 | 5,11E-03 |
| ENSG00000185686 | <i>PRAME</i> | -0,95 | 3,01E-07 | -0,53 | 5,12E-03 |
| ENSG00000196227 | <i>C20ORF177</i> | -1,03 | 6,20E-13 | -0,42 | 5,16E-03 |
| ENSG00000001036 | <i>FUCA2</i> | -0,62 | 3,47E-10 | -0,29 | 5,35E-03 |
| ENSG00000182158 | <i>CREB3L2</i> | -0,44 | 7,88E-07 | -0,26 | 5,52E-03 |
| ENSG00000198890 | <i>PRMT6</i> | -0,57 | 4,81E-06 | -0,35 | 5,59E-03 |
| ENSG00000101911 | <i>PRPS2</i> | -0,71 | 7,10E-06 | -0,45 | 5,69E-03 |

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| ENSG00000169756 | <i>LIMS1</i> | -0,35 | 1,43E-05 | -0,24 | 5,73E-03 |
| ENSG00000182054 | <i>IDH2</i> | -0,59 | 2,48E-09 | -0,29 | 5,74E-03 |
| ENSG00000159259 | <i>CHAF1B</i> | -0,69 | 3,09E-05 | -0,47 | 5,81E-03 |
| ENSG00000166441 | <i>RPL27A</i> | -0,72 | 3,74E-20 | -0,24 | 5,89E-03 |
| ENSG00000078269 | <i>SYNJ2</i> | -0,59 | 6,45E-12 | -0,25 | 5,89E-03 |
| ENSG00000132510 | <i>KDM6B</i> | -0,28 | 8,73E-03 | -0,30 | 5,98E-03 |
| ENSG00000188559 | <i>RALGAPA2</i> | -1,41 | 4,80E-40 | -0,31 | 6,05E-03 |
| ENSG00000165392 | <i>LOC652522</i> | -1,16 | 1,70E-19 | -0,37 | 6,10E-03 |
| ENSG00000102572 | <i>STK24</i> | -0,28 | 2,14E-04 | -0,22 | 6,11E-03 |
| ENSG00000131626 | <i>PPFIA1</i> | -0,46 | 3,91E-08 | -0,24 | 6,14E-03 |
| ENSG00000174469 | <i>CNTNAP2</i> | -0,85 | 3,42E-03 | -0,80 | 6,28E-03 |
| ENSG00000125257 | <i>ABCC4</i> | -0,41 | 3,70E-04 | -0,32 | 6,32E-03 |
| ENSG00000088205 | <i>DDX18</i> | -0,57 | 7,24E-13 | -0,23 | 6,52E-03 |
| ENSG00000205542 | <i>TMSB4X</i> | -0,50 | 3,06E-09 | -0,25 | 6,53E-03 |
| ENSG00000182307 | <i>C8ORF33</i> | -0,85 | 5,95E-21 | -0,26 | 6,58E-03 |
| ENSG00000119318 | <i>RAD23B</i> | -1,11 | 9,85E-69 | -0,19 | 6,62E-03 |
| ENSG00000091542 | <i>ALKBH5</i> | -0,35 | 1,06E-04 | -0,25 | 6,64E-03 |
| ENSG00000113460 | <i>BRIX1</i> | -0,69 | 1,63E-08 | -0,35 | 6,69E-03 |
| ENSG00000239306 | <i>RBM14</i> | -0,28 | 9,91E-03 | -0,29 | 6,77E-03 |
| ENSG00000110700 | <i>RPS13</i> | -0,61 | 8,12E-16 | -0,22 | 6,87E-03 |
| ENSG00000142937 | <i>RPS8</i> | -0,57 | 1,79E-14 | -0,22 | 6,90E-03 |
| ENSG00000065615 | <i>CYB5R4</i> | -0,64 | 5,72E-04 | -0,51 | 6,91E-03 |
| ENSG00000133226 | <i>SRRM1</i> | -0,64 | 1,35E-13 | -0,25 | 7,00E-03 |
| ENSG00000114982 | <i>KIAA1310</i> | -0,26 | 6,51E-03 | -0,26 | 7,07E-03 |
| ENSG00000155130 | <i>MARCKS</i> | -0,91 | 1,45E-33 | -0,22 | 7,08E-03 |
| ENSG00000145860 | <i>RNF145</i> | -1,73 | 4,76E-19 | -0,53 | 7,10E-03 |
| ENSG00000119771 | <i>KLHL29</i> | -1,25 | 5,94E-16 | -0,43 | 7,20E-03 |
| ENSG00000136527 | <i>TRA2B</i> | -0,37 | 3,62E-07 | -0,21 | 7,28E-03 |
| ENSG00000182979 | <i>MTA1</i> | -0,50 | 4,17E-06 | -0,30 | 7,33E-03 |
| ENSG00000129187 | <i>DCTD</i> | -0,70 | 3,15E-09 | -0,33 | 7,37E-03 |
| ENSG00000100162 | <i>CENPM</i> | -0,59 | 6,62E-05 | -0,41 | 7,51E-03 |
| ENSG00000100065 | <i>CARD10</i> | -0,34 | 1,20E-03 | -0,28 | 7,71E-03 |

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| ENSG00000130695 | <i>CCDC21</i> | -0,33 | 7,81E-03 | -0,33 | 7,76E-03 |
| ENSG00000187051 | <i>RPS19BP1</i> | -0,68 | 1,43E-07 | -0,36 | 7,87E-03 |
| ENSG00000128512 | <i>DOCK4</i> | -0,37 | 1,88E-04 | -0,28 | 7,91E-03 |
| ENSG00000138629 | <i>UBL7</i> | -0,42 | 1,16E-04 | -0,30 | 7,97E-03 |
| ENSG00000108298 | <i>RPL19</i> | -0,42 | 1,73E-11 | -0,18 | 7,99E-03 |
| ENSG00000224531 | <i>SMIM13</i> | -0,37 | 6,82E-04 | -0,30 | 8,07E-03 |
| ENSG00000163155 | <i>LYSMD1</i> | -1,48 | 1,22E-15 | -0,50 | 8,17E-03 |
| ENSG00000115875 | <i>SFRS7</i> | -0,45 | 3,40E-08 | -0,23 | 8,47E-03 |
| ENSG00000156697 | <i>UTP14A</i> | -0,75 | 3,16E-08 | -0,38 | 8,49E-03 |
| ENSG00000141668 | <i>CBLN2</i> | -1,37 | 2,98E-07 | -0,72 | 8,50E-03 |
| ENSG00000186416 | <i>NKRF</i> | -0,90 | 1,23E-08 | -0,43 | 8,70E-03 |
| ENSG00000166068 | <i>SPRED1</i> | -0,55 | 2,25E-04 | -0,40 | 8,70E-03 |
| ENSG00000163507 | <i>KIAA1524</i> | -0,35 | 2,52E-03 | -0,30 | 8,76E-03 |
| ENSG00000081154 | <i>PCNP</i> | -1,47 | 4,06E-49 | -0,28 | 8,83E-03 |
| ENSG00000142528 | <i>ZNF473</i> | -1,12 | 1,73E-14 | -0,40 | 8,84E-03 |
| ENSG00000132031 | <i>MATN3</i> | -0,68 | 9,04E-07 | -0,38 | 8,92E-03 |
| ENSG00000173950 | <i>C3ORF21</i> | -0,82 | 2,68E-08 | -0,40 | 8,95E-03 |
| ENSG00000164362 | <i>TERT</i> | -0,94 | 8,08E-05 | -0,64 | 9,10E-03 |
| ENSG00000168758 | <i>SEMA4C</i> | -0,54 | 1,70E-06 | -0,31 | 9,26E-03 |
| ENSG00000173598 | <i>NUDT4</i> | -0,57 | 1,46E-10 | -0,25 | 9,28E-03 |
| ENSG00000129128 | <i>SPCS3</i> | -1,31 | 4,11E-36 | -0,30 | 9,30E-03 |
| ENSG00000159140 | <i>SON</i> | -0,53 | 9,31E-14 | -0,20 | 9,36E-03 |
| ENSG00000168615 | <i>ADAM9</i> | -0,52 | 2,60E-11 | -0,22 | 9,44E-03 |
| ENSG00000013275 | <i>LOC652826</i> | -0,36 | 1,57E-04 | -0,26 | 9,46E-03 |
| ENSG00000137876 | <i>RSL24D1</i> | -0,91 | 1,88E-23 | -0,25 | 9,71E-03 |
| ENSG00000185269 | <i>NOTUM</i> | -1,75 | 3,75E-10 | -0,73 | 9,73E-03 |
| ENSG00000138823 | <i>MTTP</i> | 2,10 | 5,03E-134 | 1,98 | 5,93E-120 |
| ENSG00000165092 | <i>ALDH1A1</i> | 0,34 | 3,31E-09 | 1,19 | 9,32E-107 |
| ENSG00000167244 | <i>IGF2</i> | 0,22 | 9,42E-04 | 1,18 | 2,48E-83 |
| ENSG00000138449 | <i>SLC40A1</i> | 1,65 | 2,79E-125 | 1,25 | 6,35E-72 |
| ENSG00000072210 | <i>ALDH3A2</i> | 1,00 | 5,68E-48 | 1,14 | 3,51E-62 |
| ENSG00000115904 | <i>SOS1</i> | 0,58 | 1,57E-08 | 1,53 | 7,02E-58 |

Hepatology

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|-----------------|------------------|------|-----------|------|----------|
| ENSG0000081051 | <i>AFP</i> | 1,31 | 6,18E-56 | 1,31 | 6,28E-56 |
| ENSG00000163536 | <i>SERPINI1</i> | 1,85 | 1,20E-60 | 1,77 | 7,09E-56 |
| ENSG00000196937 | <i>FAM3C</i> | 1,47 | 1,76E-32 | 1,87 | 1,02E-53 |
| ENSG00000134717 | <i>BTF3L4</i> | 1,38 | 1,93E-32 | 1,75 | 2,23E-53 |
| ENSG00000023839 | <i>ABCC2</i> | 0,96 | 8,17E-30 | 1,22 | 1,76E-48 |
| ENSG00000135318 | <i>NT5E</i> | 1,15 | 2,19E-15 | 1,99 | 1,80E-46 |
| ENSG00000106853 | <i>PTGR1</i> | 2,80 | 1,79E-121 | 1,72 | 1,74E-44 |
| ENSG00000178988 | <i>MRFAP1L1</i> | 0,59 | 8,24E-08 | 1,38 | 6,49E-42 |
| ENSG00000142484 | <i>TM4SF5</i> | 0,96 | 9,83E-23 | 1,29 | 8,43E-41 |
| ENSG00000162409 | <i>PRKAA2</i> | 0,87 | 4,37E-18 | 1,29 | 4,55E-40 |
| ENSG00000117528 | <i>ABCD3</i> | 0,94 | 8,11E-24 | 1,21 | 2,13E-39 |
| ENSG00000135046 | <i>ANXA1</i> | 1,02 | 1,06E-09 | 2,04 | 2,79E-38 |
| ENSG00000104325 | <i>DECR1</i> | 0,82 | 3,35E-19 | 1,15 | 3,86E-38 |
| ENSG00000067057 | <i>PFKP</i> | 0,81 | 7,04E-11 | 1,50 | 1,60E-37 |
| ENSG00000162817 | <i>C10RF115</i> | 1,27 | 8,72E-37 | 1,25 | 6,64E-36 |
| ENSG00000070061 | <i>IKBKAP</i> | 0,33 | 1,97E-04 | 1,03 | 1,17E-35 |
| ENSG00000121057 | <i>AKAP1</i> | 1,16 | 4,30E-51 | 0,96 | 9,29E-35 |
| ENSG00000152601 | <i>MBNL1</i> | 0,90 | 2,25E-22 | 1,10 | 2,84E-33 |
| ENSG00000148834 | <i>GSTO1</i> | 0,37 | 2,22E-06 | 0,89 | 3,19E-33 |
| ENSG00000163492 | <i>CCDC141</i> | 0,40 | 9,68E-03 | 1,59 | 2,20E-32 |
| ENSG00000123124 | <i>WWP1</i> | 0,85 | 9,09E-19 | 1,11 | 4,15E-32 |
| ENSG00000181019 | <i>NQO1</i> | 0,91 | 1,02E-27 | 0,97 | 1,48E-31 |
| ENSG00000116209 | <i>TMEM59</i> | 0,41 | 1,85E-06 | 0,92 | 3,17E-30 |
| ENSG00000112078 | <i>KCTD20</i> | 0,66 | 9,06E-15 | 0,93 | 1,87E-29 |
| ENSG00000151632 | <i>AKR1C2</i> | 1,61 | 4,41E-49 | 1,24 | 3,26E-29 |
| ENSG00000100292 | <i>HMOX1</i> | 2,17 | 3,81E-96 | 1,18 | 9,06E-28 |
| ENSG00000165526 | <i>RPUSD4</i> | 0,77 | 1,62E-07 | 1,50 | 2,13E-27 |
| ENSG00000196975 | <i>ANXA4</i> | 0,61 | 7,27E-12 | 0,94 | 5,87E-27 |
| ENSG00000168385 | <i>SEPT2</i> | 0,68 | 7,98E-27 | 0,68 | 9,82E-27 |
| ENSG00000139112 | <i>GABARAPL1</i> | 0,95 | 1,50E-16 | 1,20 | 2,32E-26 |
| ENSG00000107104 | <i>KANK1</i> | 0,84 | 1,47E-17 | 1,02 | 5,82E-26 |
| ENSG00000151090 | <i>THR3</i> | 1,10 | 2,92E-30 | 1,01 | 9,02E-26 |

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| ENSG00000186106 | <i>ANKRD46</i> | 0,97 | 2,62E-15 | 1,26 | 1,05E-25 |
| ENSG00000197410 | <i>DCHS2</i> | 0,51 | 6,65E-03 | 1,70 | 2,21E-25 |
| ENSG00000155760 | <i>FZD7</i> | 1,28 | 8,02E-15 | 1,66 | 3,46E-25 |
| ENSG00000111269 | <i>CREBL2</i> | 0,86 | 1,51E-07 | 1,60 | 4,19E-25 |
| ENSG00000130208 | <i>APOC1</i> | 0,81 | 9,51E-25 | 0,82 | 4,55E-25 |
| ENSG00000111897 | <i>SERINC1</i> | 0,42 | 4,99E-09 | 0,71 | 1,39E-24 |
| ENSG00000127324 | <i>TSPAN8</i> | 1,29 | 2,70E-21 | 1,38 | 1,61E-24 |
| ENSG00000150593 | <i>PDCD4</i> | 0,42 | 4,39E-04 | 1,10 | 1,25E-23 |
| ENSG00000244187 | <i>TMEM141</i> | 0,48 | 3,65E-06 | 0,98 | 1,51E-23 |
| ENSG00000163586 | <i>FABP1</i> | 2,33 | 3,66E-96 | 1,14 | 7,29E-23 |
| ENSG00000143164 | <i>DCAF6</i> | 0,37 | 6,02E-06 | 0,75 | 1,42E-22 |
| ENSG00000197535 | <i>MYO5A</i> | 0,83 | 1,60E-08 | 1,35 | 5,23E-22 |
| ENSG00000118137 | <i>APOA1</i> | 1,13 | 1,18E-42 | 0,80 | 7,72E-22 |
| ENSG00000174358 | <i>SLC6A19</i> | 2,17 | 8,98E-34 | 1,74 | 1,96E-21 |
| ENSG00000119471 | <i>HSDL2</i> | 0,35 | 1,97E-04 | 0,83 | 2,01E-21 |
| ENSG00000171560 | <i>FGA</i> | 0,71 | 6,91E-14 | 0,89 | 2,99E-21 |
| ENSG00000026950 | <i>BTN3A1</i> | 0,44 | 8,31E-04 | 1,12 | 3,02E-21 |
| ENSG00000130779 | <i>CLIP1</i> | 0,53 | 7,40E-09 | 0,84 | 4,62E-21 |
| ENSG00000111058 | <i>ACSS3</i> | 0,58 | 2,05E-08 | 0,93 | 1,21E-20 |
| ENSG00000072364 | <i>AFF4</i> | 0,75 | 2,60E-23 | 0,71 | 1,56E-20 |
| ENSG00000198420 | <i>FAM115A</i> | 0,40 | 2,87E-06 | 0,75 | 1,57E-20 |
| ENSG00000140465 | <i>CYP1A1</i> | 1,39 | 1,49E-47 | 0,90 | 2,60E-20 |
| ENSG00000131242 | <i>RAB11FIP4</i> | 0,72 | 8,94E-15 | 0,84 | 3,42E-20 |
| ENSG00000149742 | <i>SLC22A9</i> | 0,96 | 7,65E-12 | 1,26 | 5,55E-20 |
| ENSG00000134283 | <i>PPHLN1</i> | 0,75 | 1,14E-23 | 0,68 | 1,13E-19 |
| ENSG00000118271 | <i>TTR</i> | 2,05 | 1,06E-113 | 0,86 | 1,42E-19 |
| ENSG00000115652 | <i>UXS1</i> | 0,27 | 2,76E-04 | 0,63 | 1,51E-19 |
| ENSG00000126218 | <i>F10</i> | 1,15 | 1,72E-33 | 0,87 | 1,85E-19 |
| ENSG00000106052 | <i>TAX1BP1</i> | 0,39 | 2,18E-06 | 0,72 | 2,21E-19 |
| ENSG00000099937 | <i>SERPIND1</i> | 0,67 | 5,58E-11 | 0,91 | 2,45E-19 |
| ENSG00000174684 | <i>B3GNT1</i> | 0,64 | 9,50E-15 | 0,74 | 2,84E-19 |
| ENSG00000113905 | <i>HRG</i> | 1,90 | 1,10E-20 | 1,83 | 3,11E-19 |

Hepatology

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| ENSG00000188488 | <i>SERPINA5</i> | 0,84 | 1,96E-08 | 1,31 | 3,33E-19 |
| ENSG00000087502 | <i>ERGIC2</i> | 0,87 | 6,18E-13 | 1,06 | 3,84E-19 |
| ENSG00000071127 | <i>WDR1</i> | 0,35 | 4,33E-07 | 0,60 | 5,69E-19 |
| ENSG00000132824 | <i>SERINC3</i> | 0,21 | 7,93E-03 | 0,64 | 6,12E-19 |
| ENSG00000163631 | <i>ALB</i> | 0,97 | 2,04E-34 | 0,71 | 6,87E-19 |
| ENSG00000139344 | <i>AMDHD1</i> | 0,76 | 8,47E-07 | 1,29 | 8,50E-19 |
| ENSG00000166311 | <i>SMPD1</i> | 1,03 | 2,64E-21 | 0,96 | 1,50E-18 |
| ENSG00000108828 | <i>VAT1</i> | 0,79 | 3,14E-26 | 0,66 | 2,51E-18 |
| ENSG00000133131 | <i>MORC4</i> | 0,58 | 6,87E-08 | 0,91 | 3,89E-18 |
| ENSG00000163624 | <i>CDS1</i> | 2,26 | 1,34E-36 | 1,60 | 4,39E-18 |
| ENSG00000119125 | <i>GDA</i> | 1,18 | 4,34E-15 | 1,29 | 4,78E-18 |
| ENSG00000164124 | <i>TMEM144</i> | 1,25 | 1,72E-18 | 1,22 | 8,99E-18 |
| ENSG00000106927 | <i>AMBP</i> | 0,88 | 1,43E-53 | 0,50 | 1,02E-17 |
| ENSG00000004897 | <i>CDC27</i> | 0,53 | 1,90E-10 | 0,70 | 1,18E-17 |
| ENSG00000165801 | <i>FLJ10357</i> | 0,69 | 5,93E-08 | 1,04 | 2,33E-17 |
| ENSG00000106351 | <i>AGFG2</i> | 0,64 | 9,34E-10 | 0,86 | 4,03E-17 |
| ENSG00000121578 | <i>B4GALT4</i> | 0,43 | 7,40E-04 | 0,98 | 6,56E-17 |
| ENSG00000243147 | <i>MRPL33</i> | 0,66 | 1,71E-05 | 1,21 | 7,04E-17 |
| ENSG00000150991 | <i>UBC</i> | 0,34 | 8,88E-06 | 0,62 | 7,49E-17 |
| ENSG00000088386 | <i>SLC15A1</i> | 1,17 | 2,88E-14 | 1,27 | 7,59E-17 |
| ENSG00000125629 | <i>INSIG2</i> | 1,06 | 2,42E-23 | 0,90 | 9,61E-17 |
| ENSG00000204439 | <i>C6ORF47</i> | 0,60 | 1,06E-03 | 1,39 | 1,18E-16 |
| ENSG00000013583 | <i>HEBP1</i> | 1,58 | 1,18E-26 | 1,24 | 1,42E-16 |
| ENSG00000111452 | <i>GPR133</i> | 1,75 | 3,81E-29 | 1,31 | 1,99E-16 |
| ENSG00000143622 | <i>RIT1</i> | 0,68 | 8,08E-08 | 1,00 | 1,99E-16 |
| ENSG00000004961 | <i>HCCS</i> | 0,66 | 3,31E-06 | 1,11 | 2,29E-16 |
| ENSG00000039068 | <i>CDH1</i> | 1,29 | 6,53E-36 | 0,87 | 3,60E-16 |
| ENSG00000112893 | <i>MAN2A1</i> | 1,11 | 1,35E-35 | 0,74 | 5,14E-16 |
| ENSG00000234127 | <i>TRIM26</i> | 0,53 | 1,76E-09 | 0,69 | 6,47E-16 |
| ENSG00000142166 | <i>IFNAR1</i> | 0,61 | 2,84E-12 | 0,70 | 7,99E-16 |
| ENSG00000106789 | <i>CORO2A</i> | 0,98 | 2,27E-19 | 0,88 | 9,79E-16 |
| ENSG00000165943 | <i>MOAP1</i> | 0,51 | 2,41E-04 | 1,04 | 1,04E-15 |

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| ENSG00000143819 | <i>EPHX1</i> | 1,28 | 1,38E-40 | 0,79 | 1,24E-15 |
| ENSG00000166035 | <i>LIPC</i> | 0,83 | 2,82E-12 | 0,94 | 1,86E-15 |
| ENSG00000116977 | <i>LGALS8</i> | 0,58 | 2,77E-08 | 0,81 | 2,09E-15 |
| ENSG00000149212 | <i>SESN3</i> | 1,06 | 3,90E-20 | 0,91 | 3,39E-15 |
| ENSG00000196502 | <i>SULT1A1</i> | 0,80 | 1,47E-08 | 1,08 | 3,40E-15 |
| ENSG00000120697 | <i>ALG5</i> | 0,92 | 4,30E-09 | 1,19 | 3,47E-15 |
| ENSG00000130005 | <i>GAMT</i> | 1,01 | 8,48E-22 | 0,84 | 3,66E-15 |
| ENSG00000128335 | <i>APOL2</i> | 1,22 | 1,44E-22 | 0,99 | 3,88E-15 |
| ENSG00000153066 | <i>TXNDC11</i> | 0,99 | 2,54E-21 | 0,83 | 4,28E-15 |
| ENSG00000182919 | <i>C11ORF54</i> | 0,53 | 3,87E-05 | 0,95 | 4,63E-15 |
| ENSG00000074527 | <i>NTN4</i> | 0,65 | 2,69E-04 | 1,30 | 4,73E-15 |
| ENSG00000120948 | <i>TARDBP</i> | 0,21 | 9,33E-03 | 0,57 | 5,29E-15 |
| ENSG00000155640 | <i>C10ORF12</i> | 0,83 | 2,80E-06 | 1,32 | 6,03E-15 |
| ENSG00000146233 | <i>CYP39A1</i> | 1,00 | 1,07E-05 | 1,68 | 6,21E-15 |
| ENSG00000174238 | <i>PITPNA</i> | 0,61 | 3,73E-09 | 0,79 | 6,31E-15 |
| ENSG00000204525 | <i>HLA-B</i> | 0,92 | 3,65E-22 | 0,75 | 1,05E-14 |
| ENSG00000006576 | <i>PHTF2</i> | 0,65 | 1,98E-13 | 0,69 | 1,18E-14 |
| ENSG00000145217 | <i>SLC26A1</i> | 1,14 | 2,19E-15 | 1,11 | 1,21E-14 |
| ENSG00000170522 | <i>ELOVL6</i> | 0,60 | 5,04E-07 | 0,89 | 1,42E-14 |
| ENSG00000132437 | <i>DDC</i> | 1,83 | 4,35E-28 | 1,32 | 1,45E-14 |
| ENSG00000072778 | <i>ACADVL</i> | 0,42 | 1,07E-06 | 0,65 | 1,45E-14 |
| ENSG00000153214 | <i>TMEM87B</i> | 0,57 | 5,21E-07 | 0,85 | 1,63E-14 |
| ENSG00000135378 | <i>PRRG4</i> | 2,09 | 2,02E-29 | 1,46 | 2,11E-14 |
| ENSG00000111052 | <i>LIN7A</i> | 0,75 | 7,53E-16 | 0,71 | 3,33E-14 |
| ENSG00000128311 | <i>TST</i> | 0,82 | 1,05E-11 | 0,90 | 4,32E-14 |
| ENSG00000172239 | <i>LOC645139</i> | 0,71 | 1,27E-13 | 0,72 | 4,91E-14 |
| ENSG00000173193 | <i>PARP14</i> | 0,98 | 6,67E-20 | 0,81 | 6,40E-14 |
| ENSG00000100612 | <i>DHRS7</i> | 1,10 | 1,64E-27 | 0,77 | 1,01E-13 |
| ENSG00000234745 | <i>HLA-B</i> | 0,62 | 2,98E-08 | 0,82 | 1,02E-13 |
| ENSG00000124120 | <i>TTPAL</i> | 0,42 | 2,99E-04 | 0,82 | 1,03E-13 |
| ENSG00000180198 | <i>RCC1</i> | 0,40 | 1,69E-05 | 0,67 | 1,58E-13 |
| ENSG00000006611 | <i>USH1C</i> | 1,41 | 4,57E-11 | 1,56 | 1,82E-13 |

Hepatology

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|-----------------|----------------|------|----------|------|----------|
| ENSG00000121380 | <i>BCL2L14</i> | 0,69 | 8,93E-03 | 1,72 | 1,94E-13 |
| ENSG00000204128 | <i>C2ORF72</i> | 0,85 | 1,55E-20 | 0,68 | 1,98E-13 |
| ENSG00000106780 | <i>MEGF9</i> | 0,60 | 6,53E-10 | 0,70 | 2,10E-13 |
| ENSG00000088340 | <i>FER1L4</i> | 1,77 | 4,20E-10 | 2,04 | 2,45E-13 |
| ENSG00000106538 | <i>RARRES2</i> | 1,02 | 6,84E-16 | 0,94 | 2,45E-13 |
| ENSG00000029364 | <i>SLC39A9</i> | 0,61 | 2,06E-13 | 0,61 | 2,73E-13 |
| ENSG00000166483 | <i>WEE1</i> | 0,46 | 5,35E-07 | 0,64 | 3,09E-13 |
| ENSG00000110169 | <i>HPX</i> | 1,87 | 1,92E-88 | 0,72 | 3,49E-13 |
| ENSG00000005469 | <i>CROT</i> | 1,49 | 4,87E-38 | 0,87 | 4,47E-13 |
| ENSG00000121741 | <i>ZMYM2</i> | 0,27 | 2,81E-03 | 0,60 | 7,05E-13 |
| ENSG00000206503 | <i>HLA-A</i> | 0,87 | 3,53E-24 | 0,63 | 7,15E-13 |
| ENSG00000111358 | <i>GTF2H3</i> | 0,35 | 2,95E-03 | 0,77 | 7,70E-13 |
| ENSG00000133135 | <i>RNF128</i> | 0,96 | 5,87E-15 | 0,88 | 8,03E-13 |
| ENSG00000214530 | <i>STARD10</i> | 0,95 | 4,81E-16 | 0,85 | 9,29E-13 |
| ENSG00000135744 | <i>AGT</i> | 0,51 | 7,22E-09 | 0,63 | 1,05E-12 |
| ENSG00000064687 | <i>ABCA7</i> | 1,30 | 1,83E-19 | 1,04 | 1,19E-12 |
| ENSG00000104371 | <i>DKK4</i> | 1,94 | 4,90E-08 | 2,48 | 1,32E-12 |
| ENSG00000256162 | <i>SMLR1</i> | 0,81 | 5,06E-06 | 1,21 | 1,44E-12 |
| ENSG00000164506 | <i>STXBP5</i> | 0,61 | 9,83E-06 | 0,93 | 1,78E-12 |
| ENSG00000197324 | <i>LRP10</i> | 0,71 | 1,50E-17 | 0,59 | 2,10E-12 |
| ENSG00000145476 | <i>CYP4V2</i> | 1,28 | 1,71E-20 | 0,99 | 2,14E-12 |
| ENSG00000169439 | <i>SDC2</i> | 0,52 | 1,51E-13 | 0,49 | 2,55E-12 |
| ENSG00000196083 | <i>IL1RAP</i> | 1,28 | 1,33E-50 | 0,62 | 3,14E-12 |
| ENSG00000160145 | <i>KALRN</i> | 0,61 | 8,19E-03 | 1,44 | 3,38E-12 |
| ENSG00000170445 | <i>HARS</i> | 0,40 | 4,09E-04 | 0,75 | 3,42E-12 |
| ENSG00000152556 | <i>PFKM</i> | 0,65 | 1,20E-04 | 1,11 | 3,99E-12 |
| ENSG00000143278 | <i>F13B</i> | 1,17 | 7,61E-07 | 1,58 | 5,52E-12 |
| ENSG00000109193 | <i>SULT1E1</i> | 0,85 | 6,93E-04 | 1,60 | 7,03E-12 |
| ENSG00000113924 | <i>HGD</i> | 0,71 | 2,46E-14 | 0,63 | 1,06E-11 |
| ENSG00000182327 | <i>GLTPD2</i> | 0,40 | 7,95E-03 | 0,94 | 1,06E-11 |
| ENSG00000019582 | <i>CD74</i> | 0,97 | 2,00E-11 | 0,99 | 1,09E-11 |
| ENSG00000135617 | <i>C2ORF7</i> | 0,99 | 2,75E-13 | 0,92 | 1,15E-11 |

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|-----------------|-----------------|------|----------|------|----------|
| ENSG00000158109 | <i>TPRG1L</i> | 0,78 | 7,23E-13 | 0,74 | 1,18E-11 |
| ENSG00000198964 | <i>SGMS1</i> | 1,33 | 1,17E-32 | 0,79 | 1,22E-11 |
| ENSG00000153130 | <i>SCOC</i> | 0,80 | 5,87E-14 | 0,73 | 1,42E-11 |
| ENSG00000122870 | <i>BICC1</i> | 0,78 | 1,04E-20 | 0,57 | 1,78E-11 |
| ENSG00000177628 | <i>GBA</i> | 0,67 | 2,27E-12 | 0,64 | 2,08E-11 |
| ENSG00000116906 | <i>GNPAT</i> | 0,31 | 5,46E-04 | 0,56 | 2,73E-11 |
| ENSG00000068308 | <i>OTUD5</i> | 0,55 | 5,78E-06 | 0,78 | 2,84E-11 |
| ENSG00000140612 | <i>SEC11A</i> | 0,80 | 2,37E-20 | 0,59 | 2,86E-11 |
| ENSG00000140391 | <i>TSPAN3</i> | 0,27 | 5,06E-04 | 0,49 | 3,47E-11 |
| ENSG00000182718 | <i>ANXA2</i> | 0,25 | 3,38E-04 | 0,45 | 4,21E-11 |
| ENSG00000108950 | <i>FAM20A</i> | 1,62 | 2,52E-11 | 1,60 | 4,25E-11 |
| ENSG00000141034 | <i>C17ORF39</i> | 1,14 | 3,17E-10 | 1,19 | 4,41E-11 |
| ENSG00000164342 | <i>TLR3</i> | 0,96 | 1,35E-04 | 1,57 | 4,98E-11 |
| ENSG00000091129 | <i>NRCAM</i> | 0,63 | 2,17E-06 | 0,85 | 5,00E-11 |
| ENSG00000092841 | <i>MYL6</i> | 0,46 | 3,82E-08 | 0,54 | 6,00E-11 |
| ENSG00000144118 | <i>RALB</i> | 0,68 | 1,11E-09 | 0,73 | 6,36E-11 |
| ENSG00000177697 | <i>CD151</i> | 0,78 | 1,47E-15 | 0,64 | 7,42E-11 |
| ENSG00000163516 | <i>ANKZF1</i> | 0,43 | 3,90E-03 | 0,90 | 7,71E-11 |
| ENSG00000130988 | <i>RGN</i> | 1,69 | 8,60E-23 | 1,16 | 8,86E-11 |
| ENSG00000105135 | <i>ILVBL</i> | 0,50 | 6,62E-07 | 0,64 | 9,61E-11 |
| ENSG00000197885 | <i>NKIRAS1</i> | 0,98 | 8,67E-08 | 1,16 | 1,12E-10 |
| ENSG00000113583 | <i>C5ORF15</i> | 0,76 | 1,35E-10 | 0,76 | 1,45E-10 |
| ENSG00000112304 | <i>ACOT13</i> | 0,47 | 2,38E-06 | 0,62 | 1,58E-10 |
| ENSG00000187134 | <i>AKR1C1</i> | 1,02 | 3,57E-24 | 0,66 | 1,75E-10 |
| ENSG00000113494 | <i>PRLR</i> | 0,90 | 1,21E-08 | 1,00 | 1,79E-10 |
| ENSG00000183020 | <i>AP2A2</i> | 0,33 | 6,96E-04 | 0,59 | 1,84E-10 |
| ENSG00000125148 | <i>MT2A</i> | 1,17 | 5,66E-19 | 0,86 | 2,00E-10 |
| ENSG00000116678 | <i>LEPR</i> | 0,71 | 3,32E-07 | 0,86 | 2,05E-10 |
| ENSG00000197956 | <i>S100A6</i> | 1,40 | 7,19E-36 | 0,74 | 2,06E-10 |
| ENSG00000110171 | <i>TRIM3</i> | 1,75 | 5,77E-29 | 1,04 | 2,10E-10 |
| ENSG00000103034 | <i>NDRG4</i> | 1,68 | 1,07E-24 | 1,08 | 2,23E-10 |
| ENSG00000162341 | <i>TPCN2</i> | 0,33 | 9,15E-03 | 0,74 | 2,35E-10 |

Hepatology

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|-----------------|------------------|------|----------|------|----------|
| ENSG00000178537 | <i>SLC25A20</i> | 1,17 | 2,61E-21 | 0,81 | 2,48E-10 |
| ENSG00000197780 | <i>TAF13</i> | 0,58 | 3,89E-06 | 0,77 | 2,67E-10 |
| ENSG00000145703 | <i>IQGAP2</i> | 0,56 | 1,55E-07 | 0,66 | 3,46E-10 |
| ENSG00000118515 | <i>SGK1</i> | 1,03 | 2,90E-16 | 0,81 | 3,74E-10 |
| ENSG00000100234 | <i>TIMP3</i> | 0,42 | 2,80E-03 | 0,82 | 4,32E-10 |
| ENSG00000130958 | <i>SLC35D2</i> | 0,25 | 6,00E-03 | 0,52 | 4,32E-10 |
| ENSG00000165775 | <i>FUNDC2</i> | 0,98 | 4,30E-22 | 0,65 | 4,57E-10 |
| ENSG00000065833 | <i>ME1</i> | 0,86 | 7,06E-24 | 0,55 | 5,97E-10 |
| ENSG00000012822 | <i>CALCOCO1</i> | 1,04 | 3,53E-10 | 1,03 | 6,35E-10 |
| ENSG00000076321 | <i>KLHL20</i> | 0,85 | 8,15E-11 | 0,81 | 6,65E-10 |
| ENSG00000148218 | <i>ALAD</i> | 1,10 | 1,40E-25 | 0,67 | 8,93E-10 |
| ENSG00000118418 | <i>HMGN3</i> | 0,28 | 1,95E-03 | 0,52 | 1,24E-09 |
| ENSG00000108846 | <i>ABCC3</i> | 0,43 | 5,28E-04 | 0,72 | 1,52E-09 |
| ENSG00000095383 | <i>TBC1D2</i> | 1,39 | 2,53E-10 | 1,33 | 1,54E-09 |
| ENSG00000075945 | <i>KIFAP3</i> | 0,89 | 2,13E-14 | 0,71 | 1,66E-09 |
| ENSG00000050165 | <i>DKK3</i> | 1,02 | 9,74E-14 | 0,84 | 1,66E-09 |
| ENSG00000104044 | <i>OCA2</i> | 1,26 | 2,97E-10 | 1,21 | 1,73E-09 |
| ENSG00000170873 | <i>MTSS1</i> | 0,80 | 3,97E-08 | 0,87 | 1,99E-09 |
| ENSG00000142156 | <i>COL6A1</i> | 1,06 | 4,21E-13 | 0,89 | 2,05E-09 |
| ENSG00000055211 | <i>C6ORF72</i> | 0,87 | 5,35E-09 | 0,89 | 2,15E-09 |
| ENSG00000111110 | <i>PPM1H</i> | 0,66 | 1,00E-07 | 0,73 | 2,15E-09 |
| ENSG00000006327 | <i>TNFRSF12A</i> | 0,48 | 3,84E-07 | 0,56 | 2,55E-09 |
| ENSG00000198074 | <i>AKR1B10</i> | 1,03 | 1,66E-06 | 1,25 | 3,40E-09 |
| ENSG00000151690 | <i>MFSD6</i> | 0,77 | 1,03E-10 | 0,70 | 3,64E-09 |
| ENSG00000129566 | <i>TEP1</i> | 0,40 | 1,58E-03 | 0,70 | 4,02E-09 |
| ENSG00000111801 | <i>BTN3A3</i> | 0,55 | 2,02E-03 | 0,98 | 4,15E-09 |
| ENSG00000148702 | <i>HABP2</i> | 1,80 | 5,46E-25 | 1,07 | 4,16E-09 |
| ENSG00000130598 | <i>TNNI2</i> | 1,55 | 6,76E-07 | 1,78 | 6,73E-09 |
| ENSG00000204634 | <i>TBC1D8</i> | 0,40 | 1,60E-04 | 0,59 | 6,79E-09 |
| ENSG00000128591 | <i>FLNC</i> | 1,19 | 3,66E-53 | 0,47 | 6,89E-09 |
| ENSG00000142227 | <i>EMP3</i> | 1,03 | 1,91E-06 | 1,23 | 6,96E-09 |
| ENSG00000063854 | <i>HAGH</i> | 0,63 | 1,06E-04 | 0,90 | 7,48E-09 |

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|-----------------|-----------------|------|-----------|------|----------|
| ENSG00000139641 | <i>ESYT1</i> | 0,33 | 1,31E-04 | 0,49 | 7,63E-09 |
| ENSG00000178074 | <i>C2ORF69</i> | 0,76 | 8,08E-08 | 0,81 | 7,84E-09 |
| ENSG00000136935 | <i>GOLGA1</i> | 0,63 | 1,46E-07 | 0,68 | 7,87E-09 |
| ENSG00000204308 | <i>RNF5</i> | 0,36 | 1,56E-04 | 0,52 | 8,36E-09 |
| ENSG00000197448 | <i>GSTK1</i> | 0,88 | 2,49E-15 | 0,66 | 9,32E-09 |
| ENSG00000106823 | <i>ECM2</i> | 1,89 | 2,70E-08 | 1,94 | 1,07E-08 |
| ENSG00000175854 | <i>C9ORF119</i> | 0,74 | 1,57E-07 | 0,80 | 1,20E-08 |
| ENSG00000163072 | <i>NOSTRIN</i> | 0,68 | 3,46E-06 | 0,82 | 1,25E-08 |
| ENSG00000102024 | <i>PLS3</i> | 0,68 | 5,04E-17 | 0,47 | 1,31E-08 |
| ENSG00000198246 | <i>SLC29A3</i> | 0,39 | 2,65E-03 | 0,70 | 1,33E-08 |
| ENSG00000132329 | <i>RAMP1</i> | 2,76 | 1,48E-30 | 1,46 | 1,36E-08 |
| ENSG00000119638 | <i>NEK9</i> | 0,48 | 4,72E-08 | 0,50 | 1,51E-08 |
| ENSG00000163644 | <i>PPM1K</i> | 0,66 | 3,31E-03 | 1,18 | 1,58E-08 |
| ENSG00000131941 | <i>RHPN2</i> | 0,58 | 7,30E-06 | 0,72 | 1,64E-08 |
| ENSG00000137171 | <i>KLC4</i> | 1,14 | 1,28E-13 | 0,89 | 1,66E-08 |
| ENSG00000136068 | <i>FLNB</i> | 0,44 | 4,09E-10 | 0,40 | 1,75E-08 |
| ENSG00000152056 | <i>AP1S3</i> | 0,84 | 2,15E-10 | 0,75 | 1,81E-08 |
| ENSG00000110628 | <i>SLC22A18</i> | 2,00 | 7,51E-33 | 1,00 | 1,90E-08 |
| ENSG00000018236 | <i>CNTN1</i> | 0,85 | 3,11E-03 | 1,50 | 1,90E-08 |
| ENSG00000154229 | <i>PRKCA</i> | 0,52 | 8,28E-08 | 0,54 | 2,01E-08 |
| ENSG00000101076 | <i>HNF4A</i> | 0,30 | 2,71E-04 | 0,44 | 2,01E-08 |
| ENSG00000138207 | <i>RBP4</i> | 0,70 | 1,05E-19 | 0,44 | 2,02E-08 |
| ENSG00000112818 | <i>MEP1A</i> | 2,52 | 3,71E-84 | 0,79 | 2,25E-08 |
| ENSG00000186470 | <i>BTN3A2</i> | 0,62 | 9,08E-07 | 0,69 | 2,42E-08 |
| ENSG00000181274 | <i>FRAT2</i> | 1,33 | 4,24E-23 | 0,78 | 2,60E-08 |
| ENSG00000172070 | <i>SRXN1</i> | 1,75 | 3,04E-21 | 1,08 | 2,73E-08 |
| ENSG00000196116 | <i>TDRD7</i> | 0,53 | 4,92E-05 | 0,70 | 2,73E-08 |
| ENSG00000160870 | <i>CYP3A7</i> | 1,81 | 1,76E-11 | 1,52 | 2,74E-08 |
| ENSG00000213759 | <i>UGT2B11</i> | 3,80 | 1,81E-101 | 1,10 | 3,17E-08 |
| ENSG00000134962 | <i>KLB</i> | 0,45 | 6,21E-09 | 0,44 | 3,35E-08 |
| ENSG00000116675 | <i>DNAJC6</i> | 1,61 | 4,04E-09 | 1,52 | 3,42E-08 |
| ENSG00000167123 | <i>CERCAM</i> | 0,92 | 3,85E-08 | 0,92 | 4,47E-08 |

Hepatology

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| ENSG00000109854 | <i>HTATIP2</i> | 0,66 | 9,89E-13 | 0,52 | 4,84E-08 |
| ENSG00000163050 | <i>CABC1</i> | 0,48 | 1,32E-05 | 0,58 | 5,79E-08 |
| ENSG00000135404 | <i>CD63</i> | 0,41 | 1,20E-08 | 0,40 | 6,09E-08 |
| ENSG00000136810 | <i>TXN</i> | 0,29 | 1,90E-03 | 0,48 | 6,57E-08 |
| ENSG00000135916 | <i>ITM2C</i> | 0,46 | 2,16E-06 | 0,53 | 6,72E-08 |
| ENSG00000161011 | <i>SQSTM1</i> | 1,09 | 1,49E-63 | 0,37 | 7,04E-08 |
| ENSG00000167601 | <i>AXL</i> | 1,49 | 7,22E-07 | 1,61 | 7,53E-08 |
| ENSG00000142494 | <i>SLC47A1</i> | 0,51 | 1,47E-04 | 0,70 | 7,58E-08 |
| ENSG00000151135 | <i>C12ORF23</i> | 0,33 | 6,79E-04 | 0,51 | 9,03E-08 |
| ENSG00000077254 | <i>USP33</i> | 0,60 | 1,38E-06 | 0,66 | 9,05E-08 |
| ENSG00000159348 | <i>CYB5R1</i> | 0,85 | 1,19E-16 | 0,57 | 9,55E-08 |
| ENSG00000213465 | <i>ARL2</i> | 0,77 | 6,26E-11 | 0,64 | 1,02E-07 |
| ENSG00000196372 | <i>ASB13</i> | 0,67 | 1,33E-05 | 0,80 | 1,02E-07 |
| ENSG00000250722 | <i>SEPP1</i> | 0,60 | 2,48E-11 | 0,49 | 1,05E-07 |
| ENSG00000163975 | <i>MFI2</i> | 1,48 | 2,17E-28 | 0,75 | 1,05E-07 |
| ENSG00000187546 | <i>TMEM195</i> | 0,58 | 2,23E-07 | 0,60 | 1,10E-07 |
| ENSG00000160551 | <i>TAOK1</i> | 0,44 | 7,09E-08 | 0,44 | 1,11E-07 |
| ENSG00000106868 | <i>SUSD1</i> | 0,38 | 6,52E-03 | 0,69 | 1,17E-07 |
| ENSG00000032444 | <i>PNPLA6</i> | 0,46 | 1,03E-04 | 0,60 | 1,32E-07 |
| ENSG00000185813 | <i>PCYT2</i> | 0,24 | 9,68E-03 | 0,45 | 1,56E-07 |
| ENSG00000120860 | <i>CCDC53</i> | 0,99 | 1,09E-06 | 1,06 | 1,57E-07 |
| ENSG00000171714 | <i>ANO5</i> | 0,56 | 2,78E-04 | 0,77 | 1,62E-07 |
| ENSG00000113597 | <i>C5ORF44</i> | 0,51 | 9,54E-04 | 0,77 | 1,62E-07 |
| ENSG00000104812 | <i>GYS1</i> | 0,38 | 1,50E-03 | 0,60 | 1,71E-07 |
| ENSG00000143434 | <i>SEMA6C</i> | 1,01 | 8,34E-07 | 1,07 | 1,73E-07 |
| ENSG00000174749 | <i>C4ORF32</i> | 0,83 | 2,10E-05 | 1,00 | 1,78E-07 |
| ENSG00000042445 | <i>RETSAT</i> | 1,00 | 2,55E-18 | 0,62 | 1,81E-07 |
| ENSG00000157613 | <i>CREB3L1</i> | 1,00 | 3,30E-06 | 1,10 | 1,98E-07 |
| ENSG00000132581 | <i>SDF2</i> | 0,34 | 1,35E-03 | 0,53 | 2,12E-07 |
| ENSG00000185787 | <i>MORF4</i> | 0,35 | 1,17E-07 | 0,35 | 2,14E-07 |
| ENSG00000112308 | <i>C6ORF62</i> | 0,29 | 3,52E-04 | 0,41 | 2,37E-07 |
| ENSG00000105852 | <i>PON3</i> | 0,50 | 1,84E-03 | 0,78 | 2,51E-07 |

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| ENSG00000189171 | <i>S100A13</i> | 0,72 | 5,89E-10 | 0,61 | 2,91E-07 |
| ENSG00000002586 | <i>CD99</i> | 0,68 | 9,53E-08 | 0,66 | 3,19E-07 |
| ENSG00000139324 | <i>TMTC3</i> | 0,89 | 1,57E-16 | 0,57 | 3,37E-07 |
| ENSG00000140961 | <i>OSGIN1</i> | 1,62 | 1,15E-28 | 0,80 | 3,37E-07 |
| ENSG00000172296 | <i>SPTLC3</i> | 1,08 | 3,88E-05 | 1,31 | 3,64E-07 |
| ENSG00000104765 | <i>BNIP3L</i> | 0,43 | 7,76E-04 | 0,62 | 3,87E-07 |
| ENSG00000146904 | <i>EPHA1</i> | 1,77 | 1,88E-19 | 1,05 | 3,93E-07 |
| ENSG00000107854 | <i>TNKS2</i> | 0,57 | 4,31E-10 | 0,47 | 4,01E-07 |
| ENSG00000170456 | <i>DENND5B</i> | 0,40 | 1,59E-03 | 0,62 | 4,01E-07 |
| ENSG00000084754 | <i>HADHA</i> | 0,23 | 3,12E-03 | 0,38 | 4,38E-07 |
| ENSG00000095321 | <i>CRAT</i> | 0,69 | 3,56E-08 | 0,64 | 4,46E-07 |
| ENSG00000143158 | <i>BRP44</i> | 0,50 | 6,26E-11 | 0,39 | 4,73E-07 |
| ENSG00000143198 | <i>MGST3</i> | 0,89 | 4,50E-16 | 0,57 | 4,88E-07 |
| ENSG00000177565 | <i>TBL1XR1</i> | 1,27 | 1,96E-64 | 0,40 | 5,97E-07 |
| ENSG00000117984 | <i>CTSD</i> | 0,84 | 8,01E-20 | 0,48 | 6,10E-07 |
| ENSG00000147257 | <i>GPC3</i> | 0,69 | 5,05E-23 | 0,37 | 6,46E-07 |
| ENSG00000122786 | <i>CALD1</i> | 0,45 | 3,10E-07 | 0,44 | 6,56E-07 |
| ENSG00000205213 | <i>LGR4</i> | 0,46 | 1,05E-09 | 0,38 | 6,64E-07 |
| ENSG00000189180 | <i>ZNF33A</i> | 0,65 | 2,19E-06 | 0,68 | 6,93E-07 |
| ENSG00000120885 | <i>CLU</i> | 1,16 | 3,69E-58 | 0,38 | 7,82E-07 |
| ENSG00000133943 | <i>C14ORF159</i> | 1,39 | 9,30E-11 | 1,09 | 8,03E-07 |
| ENSG00000151893 | <i>C10ORF46</i> | 0,58 | 2,94E-07 | 0,56 | 8,13E-07 |
| ENSG00000076555 | <i>ACACB</i> | 1,07 | 2,14E-09 | 0,90 | 8,14E-07 |
| ENSG00000166387 | <i>PPFIBP2</i> | 0,43 | 5,11E-03 | 0,71 | 8,14E-07 |
| ENSG00000113790 | <i>EHHADH</i> | 1,04 | 1,22E-17 | 0,62 | 8,77E-07 |
| ENSG00000175470 | <i>PPP2R2D</i> | 0,64 | 8,87E-05 | 0,78 | 8,93E-07 |
| ENSG00000112378 | <i>PERP</i> | 0,45 | 9,65E-10 | 0,37 | 9,16E-07 |
| ENSG00000125967 | <i>NECAB3</i> | 0,71 | 6,78E-08 | 0,65 | 9,29E-07 |
| ENSG00000158516 | <i>CPA2</i> | 2,44 | 1,13E-28 | 1,16 | 9,73E-07 |
| ENSG00000099139 | <i>PCSK5</i> | 0,93 | 1,57E-16 | 0,57 | 9,81E-07 |
| ENSG00000114812 | <i>VIPR1</i> | 1,30 | 3,97E-04 | 1,75 | 1,00E-06 |
| ENSG00000171105 | <i>INSR</i> | 0,49 | 1,12E-08 | 0,43 | 1,00E-06 |

Hepatology

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| ENSG00000196693 | <i>ZNF33B</i> | 0,82 | 1,66E-06 | 0,83 | 1,10E-06 |
| ENSG00000155366 | <i>RHOC</i> | 0,63 | 3,43E-08 | 0,57 | 1,13E-06 |
| ENSG00000170899 | <i>GSTA4</i> | 1,01 | 1,53E-12 | 0,72 | 1,17E-06 |
| ENSG00000167972 | <i>ABCA3</i> | 0,53 | 7,42E-05 | 0,64 | 1,22E-06 |
| ENSG00000115425 | <i>PECR</i> | 0,58 | 4,13E-06 | 0,61 | 1,23E-06 |
| ENSG00000160584 | <i>SIK3</i> | 0,43 | 5,07E-05 | 0,51 | 1,28E-06 |
| ENSG00000150687 | <i>PRSS23</i> | 0,38 | 1,60E-05 | 0,42 | 1,29E-06 |
| ENSG00000185339 | <i>TCN2</i> | 0,60 | 1,53E-03 | 0,88 | 1,32E-06 |
| ENSG00000165813 | <i>C10ORF118</i> | 0,83 | 3,30E-08 | 0,73 | 1,33E-06 |
| ENSG00000123146 | <i>CD97</i> | 0,69 | 9,63E-08 | 0,63 | 1,44E-06 |
| ENSG00000101290 | <i>CDS2</i> | 1,14 | 2,78E-28 | 0,53 | 1,74E-06 |
| ENSG00000116729 | <i>WLS</i> | 0,45 | 3,21E-04 | 0,58 | 1,83E-06 |
| ENSG00000203697 | <i>CAPN8</i> | 2,29 | 4,62E-11 | 1,72 | 1,83E-06 |
| ENSG00000184117 | <i>NIPSNAP1</i> | 0,37 | 1,72E-05 | 0,40 | 1,91E-06 |
| ENSG00000197165 | <i>SULT1A2</i> | 0,94 | 2,15E-07 | 0,88 | 1,95E-06 |
| ENSG00000102931 | <i>ARL2BP</i> | 1,74 | 3,67E-22 | 0,92 | 1,97E-06 |
| ENSG00000204899 | <i>C13ORF37</i> | 1,13 | 1,11E-09 | 0,91 | 2,23E-06 |
| ENSG00000115297 | <i>TLX2</i> | 1,13 | 5,25E-04 | 1,50 | 2,25E-06 |
| ENSG00000183134 | <i>GPR44</i> | 1,24 | 3,50E-05 | 1,41 | 2,27E-06 |
| ENSG00000099834 | <i>CDHR5</i> | 2,74 | 1,88E-64 | 0,84 | 2,29E-06 |
| ENSG00000180667 | <i>YOD1</i> | 0,71 | 1,09E-14 | 0,45 | 2,56E-06 |
| ENSG00000042286 | <i>AIFM2</i> | 0,64 | 3,31E-10 | 0,49 | 2,66E-06 |
| ENSG00000185432 | <i>METTL7A</i> | 1,31 | 1,15E-26 | 0,61 | 2,76E-06 |
| ENSG00000156521 | <i>TYSND1</i> | 0,54 | 2,78E-03 | 0,80 | 3,00E-06 |
| ENSG00000058866 | <i>DGKG</i> | 1,23 | 2,26E-04 | 1,52 | 3,02E-06 |
| ENSG00000204592 | <i>HLA-E</i> | 0,51 | 2,32E-08 | 0,44 | 3,04E-06 |
| ENSG00000115839 | <i>RAB3GAP1</i> | 0,41 | 4,64E-07 | 0,39 | 3,05E-06 |
| ENSG00000170412 | <i>GPRC5C</i> | 0,30 | 3,91E-03 | 0,46 | 3,07E-06 |
| ENSG00000095209 | <i>TMEM38B</i> | 0,73 | 1,54E-08 | 0,61 | 3,26E-06 |
| ENSG00000100934 | <i>SEC23A</i> | 0,26 | 2,78E-03 | 0,39 | 3,31E-06 |
| ENSG00000164237 | <i>CMBL</i> | 1,29 | 1,69E-12 | 0,88 | 3,49E-06 |
| ENSG00000130066 | <i>SAT1</i> | 0,53 | 1,13E-06 | 0,51 | 3,52E-06 |

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| ENSG00000079112 | <i>CDH17</i> | 2,24 | 1,01E-17 | 1,29 | 3,57E-06 |
| ENSG00000110717 | <i>NDUFS8</i> | 0,31 | 9,73E-04 | 0,42 | 3,72E-06 |
| ENSG00000106976 | <i>DNM1</i> | 1,51 | 5,91E-14 | 0,97 | 3,91E-06 |
| ENSG00000081026 | <i>MAGI3</i> | 0,84 | 7,22E-13 | 0,56 | 4,03E-06 |
| ENSG00000143545 | <i>LOC100131294</i> | 0,38 | 1,12E-03 | 0,52 | 4,08E-06 |
| ENSG00000121848 | <i>RNF115</i> | 0,36 | 2,61E-05 | 0,40 | 4,13E-06 |
| ENSG00000117280 | <i>RAB7L1</i> | 0,70 | 5,73E-12 | 0,49 | 4,28E-06 |
| ENSG00000144566 | <i>RAB5A</i> | 0,42 | 4,28E-05 | 0,46 | 4,35E-06 |
| ENSG00000131981 | <i>LGALS3</i> | 0,92 | 6,06E-09 | 0,74 | 4,66E-06 |
| ENSG00000121858 | <i>TNFSF10</i> | 1,60 | 3,53E-09 | 1,27 | 4,94E-06 |
| ENSG00000188186 | <i>C7ORF59</i> | 0,69 | 1,16E-06 | 0,65 | 5,07E-06 |
| ENSG00000255468 | <i>RP11-867G23.8</i> | 1,11 | 6,39E-10 | 0,85 | 5,14E-06 |
| ENSG00000177239 | <i>MAN1B1</i> | 0,66 | 7,39E-14 | 0,42 | 5,28E-06 |
| ENSG00000088387 | <i>DOCK9</i> | 0,39 | 1,93E-03 | 0,55 | 5,29E-06 |
| ENSG00000070404 | <i>FSTL3</i> | 1,23 | 1,71E-36 | 0,48 | 5,38E-06 |
| ENSG00000138688 | <i>KIAA1109</i> | 0,78 | 1,62E-15 | 0,47 | 5,54E-06 |
| ENSG00000139329 | <i>LUM</i> | 0,69 | 2,41E-12 | 0,46 | 6,02E-06 |
| ENSG00000130751 | <i>NPAS1</i> | 1,33 | 3,96E-09 | 1,04 | 7,02E-06 |
| ENSG00000154556 | <i>SORBS2</i> | 1,50 | 2,59E-21 | 0,76 | 7,10E-06 |
| ENSG00000242612 | <i>DECR2</i> | 0,58 | 2,47E-05 | 0,62 | 7,46E-06 |
| ENSG00000157502 | <i>MUM1L1</i> | 0,92 | 6,02E-08 | 0,78 | 7,95E-06 |
| ENSG00000079689 | <i>SCGN</i> | 1,18 | 1,93E-06 | 1,11 | 7,97E-06 |
| ENSG00000154518 | <i>ATP5G3</i> | 0,22 | 8,85E-03 | 0,35 | 8,31E-06 |
| ENSG00000104419 | <i>NDRG1</i> | 2,21 | 4,08E-87 | 0,54 | 9,58E-06 |
| ENSG00000154265 | <i>ABCA5</i> | 1,11 | 2,58E-19 | 0,58 | 9,68E-06 |
| ENSG00000140297 | <i>GCNT3</i> | 2,49 | 1,16E-32 | 1,02 | 9,82E-06 |
| ENSG00000094631 | <i>HDAC6</i> | 0,71 | 7,94E-09 | 0,56 | 9,93E-06 |
| ENSG00000221963 | <i>APOL6</i> | 0,67 | 2,47E-03 | 0,93 | 1,03E-05 |
| ENSG00000108788 | <i>MLX</i> | 0,41 | 3,20E-05 | 0,44 | 1,06E-05 |
| ENSG00000138794 | <i>CASP6</i> | 0,69 | 3,30E-06 | 0,66 | 1,08E-05 |
| ENSG00000099994 | <i>SUSD2</i> | 1,23 | 3,18E-08 | 1,00 | 1,09E-05 |
| ENSG00000166450 | <i>PRTG</i> | 0,95 | 4,08E-06 | 0,91 | 1,09E-05 |

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|-----------------|-----------------|------|----------|------|----------|
| ENSG00000107537 | <i>PHYH</i> | 0,63 | 2,23E-07 | 0,54 | 1,12E-05 |
| ENSG00000179222 | <i>MAGED1</i> | 0,38 | 1,84E-05 | 0,39 | 1,12E-05 |
| ENSG00000172594 | <i>SMPDL3A</i> | 0,98 | 5,77E-11 | 0,68 | 1,34E-05 |
| ENSG00000141574 | <i>SECTM1</i> | 1,55 | 8,73E-31 | 0,64 | 1,34E-05 |
| ENSG00000110013 | <i>SIAE</i> | 0,99 | 2,06E-07 | 0,84 | 1,35E-05 |
| ENSG00000014641 | <i>MDH1</i> | 0,26 | 1,19E-03 | 0,34 | 1,35E-05 |
| ENSG00000174282 | <i>ZBTB4</i> | 1,05 | 7,07E-26 | 0,47 | 1,36E-05 |
| ENSG00000198689 | <i>SLC9A6</i> | 1,00 | 1,36E-10 | 0,70 | 1,37E-05 |
| ENSG00000143669 | <i>LYST</i> | 1,14 | 1,62E-18 | 0,60 | 1,38E-05 |
| ENSG00000158769 | <i>F11R</i> | 0,60 | 1,18E-14 | 0,35 | 1,45E-05 |
| ENSG00000111816 | <i>FRK</i> | 1,31 | 2,82E-20 | 0,66 | 1,46E-05 |
| ENSG00000167113 | <i>COQ4</i> | 0,66 | 1,82E-04 | 0,75 | 1,72E-05 |
| ENSG00000163293 | <i>NIPAL1</i> | 1,22 | 1,03E-12 | 0,77 | 1,72E-05 |
| ENSG00000159322 | <i>ADPGK</i> | 0,31 | 5,10E-03 | 0,46 | 1,74E-05 |
| ENSG00000198610 | <i>AKR1C4</i> | 0,88 | 2,72E-03 | 1,21 | 1,76E-05 |
| ENSG00000151715 | <i>TMEM45B</i> | 0,73 | 3,44E-03 | 1,03 | 1,97E-05 |
| ENSG00000137831 | <i>UACA</i> | 1,42 | 6,73E-41 | 0,49 | 2,06E-05 |
| ENSG00000183856 | <i>IQGAP3</i> | 0,39 | 7,42E-05 | 0,42 | 2,10E-05 |
| ENSG00000104889 | <i>RNASEH2A</i> | 0,57 | 9,57E-07 | 0,50 | 2,22E-05 |
| ENSG00000119431 | <i>HDHD3</i> | 0,78 | 3,74E-08 | 0,62 | 2,30E-05 |
| ENSG00000184076 | <i>UOCR10</i> | 0,36 | 1,69E-03 | 0,47 | 2,32E-05 |
| ENSG00000134452 | <i>FBXO18</i> | 0,47 | 1,04E-04 | 0,50 | 2,39E-05 |
| ENSG00000169372 | <i>CRADD</i> | 0,60 | 2,75E-03 | 0,81 | 2,42E-05 |
| ENSG00000110066 | <i>SUV420H1</i> | 0,28 | 1,44E-03 | 0,37 | 2,43E-05 |
| ENSG00000155324 | <i>GRAMD3</i> | 0,76 | 3,18E-04 | 0,88 | 2,47E-05 |
| ENSG00000198270 | <i>TMEM116</i> | 0,96 | 6,09E-08 | 0,77 | 2,64E-05 |
| ENSG00000103415 | <i>HMOX2</i> | 0,46 | 1,88E-03 | 0,60 | 2,71E-05 |
| ENSG00000134049 | <i>IER3IP1</i> | 0,77 | 4,17E-03 | 1,07 | 2,71E-05 |
| ENSG00000102753 | <i>KPNA3</i> | 0,62 | 1,70E-08 | 0,47 | 2,72E-05 |
| ENSG00000166801 | <i>FAM111A</i> | 0,60 | 8,77E-07 | 0,52 | 2,75E-05 |
| ENSG00000123636 | <i>BAZ2B</i> | 0,62 | 1,65E-06 | 0,55 | 2,81E-05 |
| ENSG00000117226 | <i>GBP3</i> | 1,36 | 9,21E-05 | 1,46 | 2,81E-05 |

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| ENSG00000090013 | <i>BLVRB</i> | 0,47 | 1,63E-03 | 0,60 | 2,82E-05 |
| ENSG00000006025 | <i>OSBPL7</i> | 1,67 | 1,82E-09 | 1,21 | 2,90E-05 |
| ENSG00000139263 | <i>LRIG3</i> | 0,31 | 3,85E-03 | 0,42 | 2,91E-05 |
| ENSG00000176720 | <i>BOK</i> | 0,36 | 6,92E-03 | 0,53 | 2,93E-05 |
| ENSG00000187097 | <i>ENTPD5</i> | 0,86 | 5,88E-22 | 0,40 | 3,02E-05 |
| ENSG00000131171 | <i>SH3BGRL</i> | 0,56 | 6,43E-05 | 0,58 | 3,16E-05 |
| ENSG00000113966 | <i>ARL6</i> | 1,24 | 6,11E-05 | 1,29 | 3,20E-05 |
| ENSG00000172869 | <i>DMXL1</i> | 0,79 | 2,73E-12 | 0,49 | 3,34E-05 |
| ENSG00000165434 | <i>PGM2L1</i> | 1,43 | 1,53E-18 | 0,72 | 3,54E-05 |
| ENSG00000073910 | <i>FRY</i> | 0,44 | 1,37E-03 | 0,55 | 3,57E-05 |
| ENSG00000143653 | <i>SCCPDH</i> | 0,79 | 4,54E-17 | 0,41 | 3,68E-05 |
| ENSG00000164938 | <i>TP53INP1</i> | 0,50 | 1,24E-07 | 0,40 | 3,78E-05 |
| ENSG00000006831 | <i>ADIPOR2</i> | 0,55 | 8,30E-15 | 0,31 | 3,95E-05 |
| ENSG00000166710 | <i>B2M</i> | 0,20 | 4,28E-03 | 0,27 | 4,17E-05 |
| ENSG00000134590 | <i>FAM127A</i> | 0,50 | 5,55E-04 | 0,59 | 4,29E-05 |
| ENSG00000115216 | <i>NRBP1</i> | 0,42 | 8,96E-06 | 0,39 | 4,32E-05 |
| ENSG00000123595 | <i>RAB9A</i> | 0,77 | 2,63E-05 | 0,75 | 4,34E-05 |
| ENSG00000182326 | <i>C1S</i> | 0,90 | 5,10E-16 | 0,48 | 4,40E-05 |
| ENSG00000172955 | <i>ADH6</i> | 0,78 | 2,03E-04 | 0,85 | 4,48E-05 |
| ENSG00000154065 | <i>ANKRD29</i> | 1,21 | 1,84E-10 | 0,81 | 4,51E-05 |
| ENSG00000185664 | <i>SILV</i> | 0,82 | 4,14E-03 | 1,11 | 4,57E-05 |
| ENSG00000117450 | <i>PRDX1</i> | 0,29 | 6,74E-05 | 0,30 | 4,57E-05 |
| ENSG00000116661 | <i>FBXO2</i> | 0,79 | 4,33E-05 | 0,79 | 4,59E-05 |
| ENSG00000113595 | <i>TRIM23</i> | 0,95 | 1,19E-10 | 0,63 | 4,62E-05 |
| ENSG00000104093 | <i>DMXL2</i> | 0,93 | 3,45E-18 | 0,47 | 4,64E-05 |
| ENSG00000168528 | <i>SERINC2</i> | 0,90 | 8,38E-19 | 0,44 | 4,96E-05 |
| ENSG00000137764 | <i>MAP2K5</i> | 0,72 | 7,56E-04 | 0,84 | 4,96E-05 |
| ENSG00000100342 | <i>APOL1</i> | 1,62 | 4,99E-07 | 1,34 | 5,00E-05 |
| ENSG00000145246 | <i>ATP10D</i> | 0,42 | 2,56E-04 | 0,46 | 5,07E-05 |
| ENSG00000159403 | <i>C1R</i> | 0,86 | 3,94E-06 | 0,77 | 5,14E-05 |
| ENSG00000133466 | <i>C1QTNF6</i> | 0,95 | 2,73E-07 | 0,77 | 5,24E-05 |
| ENSG00000124788 | <i>ATXN1</i> | 0,68 | 8,68E-05 | 0,70 | 5,26E-05 |

Hepatology

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| ENSG00000113369 | <i>ARRDC3</i> | 1,20 | 4,40E-14 | 0,68 | 5,56E-05 |
| ENSG00000140939 | <i>NOL3</i> | 0,95 | 2,23E-04 | 1,03 | 5,82E-05 |
| ENSG00000132561 | <i>MATN2</i> | 2,03 | 7,47E-52 | 0,60 | 6,39E-05 |
| ENSG00000111331 | <i>OAS3</i> | 0,68 | 1,60E-05 | 0,64 | 6,47E-05 |
| ENSG00000102781 | <i>KATNAL1</i> | 0,77 | 3,59E-08 | 0,58 | 6,58E-05 |
| ENSG00000063322 | <i>MED29</i> | 0,62 | 1,44E-07 | 0,49 | 6,60E-05 |
| ENSG00000153291 | <i>SLC25A27</i> | 1,09 | 3,97E-04 | 1,22 | 6,92E-05 |
| ENSG00000162852 | <i>CNST</i> | 1,08 | 2,16E-33 | 0,39 | 7,01E-05 |
| ENSG00000215375 | <i>MYL5</i> | 1,19 | 3,83E-05 | 1,16 | 7,03E-05 |
| ENSG00000119979 | <i>FAM45A</i> | 0,62 | 1,48E-05 | 0,57 | 7,92E-05 |
| ENSG00000161249 | <i>DMKN</i> | 0,59 | 9,81E-05 | 0,60 | 8,20E-05 |
| ENSG00000135454 | <i>B4GALNT1</i> | 0,51 | 7,90E-03 | 0,73 | 8,41E-05 |
| ENSG00000146416 | <i>AIG1</i> | 1,01 | 3,56E-18 | 0,49 | 8,48E-05 |
| ENSG00000172007 | <i>RAB33B</i> | 0,74 | 3,50E-06 | 0,64 | 8,94E-05 |
| ENSG00000114745 | <i>GORASP1</i> | 0,42 | 3,48E-03 | 0,55 | 8,98E-05 |
| ENSG00000108479 | <i>GALK1</i> | 1,29 | 6,23E-27 | 0,51 | 8,98E-05 |
| ENSG00000125637 | <i>PSD4</i> | 0,70 | 1,42E-04 | 0,72 | 9,55E-05 |
| ENSG00000151413 | <i>NUBPL</i> | 1,11 | 7,73E-10 | 0,74 | 9,81E-05 |
| ENSG00000169814 | <i>BTD</i> | 0,78 | 3,30E-09 | 0,54 | 1,08E-04 |
| ENSG00000148935 | <i>GAS2</i> | 0,60 | 1,82E-05 | 0,55 | 1,09E-04 |
| ENSG00000013288 | <i>MAN2B2</i> | 0,55 | 1,28E-06 | 0,45 | 1,10E-04 |
| ENSG00000124357 | <i>NAGK</i> | 0,94 | 1,67E-18 | 0,45 | 1,10E-04 |
| ENSG00000135387 | <i>CAPRIN1</i> | 0,24 | 7,62E-04 | 0,27 | 1,12E-04 |
| ENSG00000131781 | <i>FMO5</i> | 0,58 | 1,95E-03 | 0,71 | 1,14E-04 |
| ENSG00000149792 | <i>MRPL49</i> | 0,47 | 1,30E-06 | 0,38 | 1,19E-04 |
| ENSG00000171345 | <i>KRT19</i> | 0,36 | 3,54E-04 | 0,39 | 1,21E-04 |
| ENSG00000114353 | <i>GNAI2</i> | 0,71 | 2,69E-14 | 0,38 | 1,23E-04 |
| ENSG00000114999 | <i>TTL</i> | 0,52 | 1,56E-08 | 0,37 | 1,29E-04 |
| ENSG00000139410 | <i>SDSL</i> | 0,66 | 2,87E-03 | 0,82 | 1,32E-04 |
| ENSG00000134265 | <i>NAPG</i> | 0,40 | 2,57E-03 | 0,49 | 1,35E-04 |
| ENSG00000103496 | <i>STX4</i> | 0,90 | 2,88E-10 | 0,57 | 1,36E-04 |
| ENSG00000165169 | <i>DYNLT3</i> | 0,46 | 6,38E-04 | 0,51 | 1,36E-04 |

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| ENSG00000130714 | <i>POMT1</i> | 0,84 | 9,81E-13 | 0,47 | 1,40E-04 |
| ENSG00000205423 | <i>LOC100130176</i> | 0,80 | 5,47E-05 | 0,77 | 1,41E-04 |
| ENSG00000153666 | <i>GOLGA9P</i> | 1,52 | 1,16E-17 | 0,73 | 1,47E-04 |
| ENSG00000161653 | <i>NAGS</i> | 1,45 | 3,40E-08 | 1,04 | 1,47E-04 |
| ENSG00000161267 | <i>BDH1</i> | 2,71 | 6,38E-33 | 0,97 | 1,48E-04 |
| ENSG00000110723 | <i>EXPH5</i> | 0,96 | 9,28E-05 | 0,93 | 1,50E-04 |
| ENSG00000128016 | <i>ZFP36</i> | 0,61 | 6,28E-04 | 0,67 | 1,52E-04 |
| ENSG00000116774 | <i>OLFML3</i> | 0,51 | 6,29E-08 | 0,37 | 1,52E-04 |
| ENSG00000100258 | <i>LMF2</i> | 0,53 | 7,51E-09 | 0,36 | 1,54E-04 |
| ENSG00000122884 | <i>P4HA1</i> | 0,50 | 9,83E-06 | 0,44 | 1,54E-04 |
| ENSG00000131370 | <i>SH3BP5</i> | 1,40 | 3,75E-05 | 1,30 | 1,55E-04 |
| ENSG00000197635 | <i>DPP4</i> | 0,60 | 1,79E-15 | 0,30 | 1,56E-04 |
| ENSG00000183978 | <i>CCDC56</i> | 0,43 | 1,76E-05 | 0,38 | 1,58E-04 |
| ENSG00000012174 | <i>MBTPS2</i> | 1,05 | 5,75E-22 | 0,45 | 1,59E-04 |
| ENSG00000198189 | <i>HSD17B11</i> | 1,30 | 7,01E-65 | 0,32 | 1,64E-04 |
| ENSG00000182902 | <i>SLC25A18</i> | 1,09 | 1,17E-03 | 1,24 | 1,83E-04 |
| ENSG00000179163 | <i>FUCA1</i> | 0,89 | 1,63E-09 | 0,58 | 1,84E-04 |
| ENSG00000233056 | <i>ERVH48-1</i> | 0,44 | 1,70E-04 | 0,44 | 1,84E-04 |
| ENSG00000196268 | <i>ZNF493</i> | 1,01 | 6,19E-05 | 0,95 | 1,85E-04 |
| ENSG00000092421 | <i>SEMA6A</i> | 0,59 | 1,28E-03 | 0,67 | 1,89E-04 |
| ENSG00000149932 | <i>TMEM219</i> | 0,60 | 7,20E-07 | 0,47 | 1,96E-04 |
| ENSG00000118564 | <i>FBXL5</i> | 0,61 | 1,16E-08 | 0,41 | 1,98E-04 |
| ENSG00000136040 | <i>PLXNC1</i> | 0,48 | 2,88E-08 | 0,34 | 2,01E-04 |
| ENSG00000128607 | <i>KLHDC10</i> | 0,75 | 1,25E-10 | 0,46 | 2,03E-04 |
| ENSG00000119242 | <i>CCDC92</i> | 0,57 | 1,90E-03 | 0,67 | 2,04E-04 |
| ENSG00000001561 | <i>ENPP4</i> | 0,54 | 7,76E-04 | 0,59 | 2,06E-04 |
| ENSG00000118762 | <i>PKD2</i> | 0,58 | 7,88E-04 | 0,63 | 2,14E-04 |
| ENSG00000136883 | <i>KIF12</i> | 1,03 | 3,29E-09 | 0,68 | 2,14E-04 |
| ENSG00000160282 | <i>FTCD</i> | 0,55 | 3,89E-03 | 0,69 | 2,15E-04 |
| ENSG00000106617 | <i>PRKAG2</i> | 0,66 | 5,52E-03 | 0,85 | 2,25E-04 |
| ENSG00000099797 | <i>TECR</i> | 0,39 | 2,10E-03 | 0,46 | 2,29E-04 |
| ENSG00000161203 | <i>AP2M1</i> | 0,27 | 5,53E-04 | 0,29 | 2,30E-04 |

Hepatology

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|-----------------|------------------|------|----------|------|----------|
| ENSG00000120256 | <i>LRP11</i> | 0,98 | 5,36E-15 | 0,49 | 2,44E-04 |
| ENSG00000139266 | <i>MARCH9</i> | 0,62 | 9,66E-03 | 0,85 | 2,49E-04 |
| ENSG00000106078 | <i>COBL</i> | 0,33 | 3,20E-03 | 0,41 | 2,51E-04 |
| ENSG00000066739 | <i>ATG2B</i> | 0,65 | 7,31E-09 | 0,43 | 2,52E-04 |
| ENSG00000161533 | <i>ACOX1</i> | 0,84 | 6,40E-29 | 0,30 | 2,53E-04 |
| ENSG00000166974 | <i>MAPRE2</i> | 0,48 | 4,13E-03 | 0,60 | 2,54E-04 |
| ENSG00000119888 | <i>EPCAM</i> | 0,51 | 1,15E-12 | 0,28 | 2,58E-04 |
| ENSG00000122861 | <i>PLAU</i> | 1,21 | 1,35E-04 | 1,17 | 2,71E-04 |
| ENSG00000106333 | <i>PCOLCE</i> | 0,89 | 6,12E-05 | 0,82 | 2,76E-04 |
| ENSG00000169762 | <i>TAPT1</i> | 0,64 | 2,46E-11 | 0,36 | 2,94E-04 |
| ENSG00000001084 | <i>GCLC</i> | 0,73 | 6,00E-14 | 0,38 | 2,98E-04 |
| ENSG00000004799 | <i>PK4</i> | 1,79 | 5,37E-09 | 1,17 | 3,11E-04 |
| ENSG00000117305 | <i>HMGCL</i> | 0,96 | 9,34E-18 | 0,44 | 3,13E-04 |
| ENSG00000073605 | <i>GSDMB</i> | 0,60 | 4,06E-03 | 0,73 | 3,18E-04 |
| ENSG00000152137 | <i>HSPB8</i> | 1,19 | 1,98E-24 | 0,46 | 3,27E-04 |
| ENSG00000197444 | <i>OGDHL</i> | 0,85 | 7,46E-05 | 0,78 | 3,29E-04 |
| ENSG00000185361 | <i>TNFAIP8L1</i> | 0,31 | 6,51E-03 | 0,39 | 3,30E-04 |
| ENSG00000033327 | <i>GAB2</i> | 0,76 | 9,46E-07 | 0,58 | 3,30E-04 |
| ENSG00000165410 | <i>CFL2</i> | 0,61 | 9,31E-11 | 0,35 | 3,35E-04 |
| ENSG00000175984 | <i>DENND2C</i> | 1,36 | 1,00E-14 | 0,68 | 3,46E-04 |
| ENSG00000137491 | <i>SLCO2B1</i> | 1,86 | 9,82E-43 | 0,55 | 3,51E-04 |
| ENSG00000186654 | <i>ARHGAP8</i> | 1,65 | 2,02E-15 | 0,80 | 3,66E-04 |
| ENSG00000178761 | <i>C15ORF17</i> | 0,41 | 2,98E-03 | 0,48 | 3,69E-04 |
| ENSG00000097033 | <i>SH3GLB1</i> | 0,69 | 1,10E-16 | 0,32 | 3,76E-04 |
| ENSG00000175265 | <i>GOLGA8A</i> | 0,88 | 2,10E-10 | 0,52 | 3,80E-04 |
| ENSG00000179889 | <i>PDXDC1</i> | 0,23 | 2,48E-03 | 0,26 | 3,83E-04 |
| ENSG00000115020 | <i>PIKFYVE</i> | 0,77 | 7,30E-14 | 0,39 | 4,17E-04 |
| ENSG00000116005 | <i>PCYOX1</i> | 0,44 | 2,11E-08 | 0,29 | 4,18E-04 |
| ENSG00000160789 | <i>LMNA</i> | 0,46 | 6,26E-09 | 0,29 | 4,42E-04 |
| ENSG00000163328 | <i>GPR155</i> | 1,48 | 1,08E-11 | 0,82 | 4,47E-04 |
| ENSG00000171307 | <i>ZDHC16</i> | 0,55 | 1,41E-05 | 0,46 | 4,53E-04 |
| ENSG00000179454 | <i>KLHL28</i> | 0,83 | 7,66E-06 | 0,67 | 4,65E-04 |

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|-----------------|---------------------|------|----------|------|----------|
| ENSG00000125144 | <i>MT1G</i> | 1,59 | 5,79E-08 | 1,08 | 4,67E-04 |
| ENSG00000182165 | <i>TP53TG1</i> | 0,67 | 4,88E-03 | 0,81 | 5,17E-04 |
| ENSG00000127870 | <i>RNF6</i> | 0,35 | 7,76E-03 | 0,45 | 5,22E-04 |
| ENSG00000178685 | <i>PARP10</i> | 1,02 | 2,53E-05 | 0,86 | 5,26E-04 |
| ENSG00000128573 | <i>FOXP2</i> | 0,76 | 1,22E-04 | 0,69 | 5,49E-04 |
| ENSG00000127995 | <i>CASD1</i> | 0,47 | 1,88E-04 | 0,44 | 5,57E-04 |
| ENSG00000135637 | <i>CCDC142</i> | 0,65 | 2,01E-05 | 0,54 | 5,58E-04 |
| ENSG00000171365 | <i>CLCN5</i> | 0,77 | 3,83E-15 | 0,36 | 5,65E-04 |
| ENSG00000178104 | <i>LOC100134230</i> | 0,98 | 2,74E-25 | 0,35 | 5,71E-04 |
| ENSG00000177732 | <i>SOX12</i> | 0,36 | 3,75E-03 | 0,41 | 5,90E-04 |
| ENSG00000122912 | <i>SLC25A16</i> | 0,66 | 2,59E-04 | 0,63 | 5,92E-04 |
| ENSG00000111666 | <i>CHPT1</i> | 0,60 | 9,21E-09 | 0,37 | 6,03E-04 |
| ENSG00000186141 | <i>POLR3C</i> | 0,47 | 1,01E-06 | 0,34 | 6,16E-04 |
| ENSG00000119950 | <i>MXI1</i> | 0,61 | 3,56E-03 | 0,70 | 6,16E-04 |
| ENSG00000096092 | <i>TMEM14A</i> | 0,80 | 3,06E-11 | 0,44 | 6,40E-04 |
| ENSG00000178038 | <i>ALS2CL</i> | 0,90 | 2,06E-04 | 0,84 | 6,46E-04 |
| ENSG00000112874 | <i>NUDT12</i> | 0,52 | 4,45E-04 | 0,50 | 6,70E-04 |
| ENSG00000118640 | <i>VAMP8</i> | 0,55 | 4,43E-07 | 0,39 | 6,71E-04 |
| ENSG00000108443 | <i>RPS6KB1</i> | 0,41 | 3,04E-04 | 0,39 | 6,88E-04 |
| ENSG00000166341 | <i>DCHS1</i> | 0,79 | 3,47E-05 | 0,66 | 6,95E-04 |
| ENSG00000182179 | <i>UBA7</i> | 0,88 | 1,21E-03 | 0,92 | 7,21E-04 |
| ENSG00000154153 | <i>FAM134B</i> | 1,05 | 1,11E-03 | 1,08 | 7,41E-04 |
| ENSG00000157796 | <i>WDR19</i> | 0,43 | 1,41E-03 | 0,45 | 7,58E-04 |
| ENSG00000083799 | <i>CYLD</i> | 0,55 | 8,15E-05 | 0,48 | 7,61E-04 |
| ENSG00000156298 | <i>TSPAN7</i> | 1,01 | 1,17E-04 | 0,90 | 7,63E-04 |
| ENSG00000137269 | <i>LRRC1</i> | 0,79 | 2,45E-12 | 0,41 | 7,69E-04 |
| ENSG00000198954 | <i>KIAA1279</i> | 0,40 | 5,84E-03 | 0,47 | 8,14E-04 |
| ENSG00000165915 | <i>SLC39A13</i> | 0,80 | 6,34E-09 | 0,48 | 8,19E-04 |
| ENSG00000135407 | <i>AVIL</i> | 1,48 | 2,84E-06 | 1,10 | 8,41E-04 |
| ENSG00000130829 | <i>DUSP9</i> | 1,19 | 7,98E-50 | 0,30 | 8,61E-04 |
| ENSG00000163702 | <i>IL17RC</i> | 0,57 | 3,21E-05 | 0,47 | 8,82E-04 |
| ENSG00000143322 | <i>ABL2</i> | 0,60 | 1,10E-07 | 0,39 | 8,90E-04 |

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|-----------------|----------------------|------|----------|------|----------|
| ENSG0000087086 | <i>FTL</i> | 0,68 | 4,37E-25 | 0,24 | 8,93E-04 |
| ENSG00000164542 | <i>KIAA0895</i> | 0,41 | 8,93E-04 | 0,41 | 9,14E-04 |
| ENSG00000231025 | <i>RP11-175O19.4</i> | 0,74 | 2,63E-03 | 0,81 | 9,27E-04 |
| ENSG00000204389 | <i>HSPA1A</i> | 0,85 | 1,01E-14 | 0,39 | 9,50E-04 |
| ENSG00000173221 | <i>GLRX</i> | 0,86 | 1,35E-04 | 0,76 | 9,67E-04 |
| ENSG00000198408 | <i>MGEA5</i> | 0,29 | 7,88E-03 | 0,35 | 9,73E-04 |
| ENSG00000124333 | <i>VAMP7</i> | 0,40 | 1,02E-03 | 0,40 | 9,73E-04 |
| ENSG00000131018 | <i>SYNE1</i> | 0,98 | 1,40E-16 | 0,43 | 9,84E-04 |
| ENSG00000161010 | <i>C5ORF45</i> | 0,83 | 4,12E-10 | 0,47 | 9,90E-04 |
| ENSG00000067836 | <i>ROGDI</i> | 0,84 | 1,00E-04 | 0,73 | 9,90E-04 |
| ENSG00000106070 | <i>GRB10</i> | 0,70 | 1,54E-11 | 0,37 | 1,00E-03 |
| ENSG00000078018 | <i>MAP2</i> | 0,53 | 8,76E-03 | 0,65 | 1,04E-03 |
| ENSG00000164684 | <i>ZNF704</i> | 0,71 | 9,30E-06 | 0,54 | 1,05E-03 |
| ENSG00000134317 | <i>GRHL1</i> | 1,04 | 2,77E-09 | 0,61 | 1,05E-03 |
| ENSG00000123843 | <i>C4BPB</i> | 1,32 | 2,93E-19 | 0,53 | 1,06E-03 |
| ENSG00000140750 | <i>ARHGAP17</i> | 0,34 | 8,23E-03 | 0,41 | 1,07E-03 |
| ENSG00000127824 | <i>TUBA4A</i> | 0,51 | 4,17E-04 | 0,48 | 1,09E-03 |
| ENSG00000080815 | <i>PSEN1</i> | 0,50 | 1,44E-07 | 0,32 | 1,10E-03 |
| ENSG00000010310 | <i>GIPR</i> | 1,55 | 4,23E-06 | 1,14 | 1,16E-03 |
| ENSG00000145817 | <i>YIPF5</i> | 0,28 | 7,38E-03 | 0,33 | 1,16E-03 |
| ENSG00000184674 | <i>GSTT1</i> | 0,58 | 3,07E-06 | 0,42 | 1,19E-03 |
| ENSG00000168300 | <i>PCMTD1</i> | 0,65 | 1,42E-04 | 0,56 | 1,21E-03 |
| ENSG00000169435 | <i>RASSF6</i> | 0,94 | 3,46E-03 | 1,03 | 1,21E-03 |
| ENSG00000179532 | <i>DNHD1</i> | 0,73 | 4,99E-04 | 0,68 | 1,22E-03 |
| ENSG00000006625 | <i>GGCT</i> | 0,42 | 3,49E-05 | 0,33 | 1,23E-03 |
| ENSG00000163344 | <i>PMVK</i> | 1,05 | 1,32E-18 | 0,42 | 1,24E-03 |
| ENSG00000023909 | <i>GCLM</i> | 0,62 | 1,04E-07 | 0,40 | 1,25E-03 |
| ENSG00000123933 | <i>MXD4</i> | 0,80 | 4,88E-16 | 0,35 | 1,27E-03 |
| ENSG00000215039 | <i>CD27-AS1</i> | 0,70 | 8,27E-03 | 0,83 | 1,28E-03 |
| ENSG00000008869 | <i>HEATR5B</i> | 0,37 | 2,10E-03 | 0,39 | 1,30E-03 |
| ENSG00000169629 | <i>RGPD3</i> | 1,03 | 7,91E-04 | 1,00 | 1,31E-03 |
| ENSG00000132669 | <i>RIN2</i> | 1,29 | 1,64E-06 | 0,91 | 1,31E-03 |

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| ENSG00000166821 | <i>PEX11A</i> | 0,95 | 4,73E-05 | 0,77 | 1,31E-03 |
| ENSG00000129625 | <i>REEP5</i> | 0,61 | 6,50E-12 | 0,30 | 1,59E-03 |
| ENSG00000122644 | <i>ARL4A</i> | 0,42 | 2,22E-04 | 0,36 | 1,62E-03 |
| ENSG00000256223 | <i>ZNF10</i> | 0,69 | 5,01E-05 | 0,55 | 1,67E-03 |
| ENSG00000137575 | <i>SDCBP</i> | 0,34 | 1,09E-03 | 0,33 | 1,68E-03 |
| ENSG00000106211 | <i>HSPB1</i> | 0,52 | 8,23E-07 | 0,35 | 1,79E-03 |
| ENSG00000185245 | <i>GP1BA</i> | 1,69 | 1,80E-06 | 1,17 | 1,79E-03 |
| ENSG00000134333 | <i>LDHA</i> | 0,22 | 3,73E-03 | 0,23 | 1,80E-03 |
| ENSG00000074416 | <i>MGLL</i> | 0,82 | 2,93E-09 | 0,46 | 1,80E-03 |
| ENSG00000198324 | <i>FAM109A</i> | 1,13 | 1,86E-13 | 0,52 | 1,90E-03 |
| ENSG00000089723 | <i>OTUB2</i> | 0,61 | 9,97E-03 | 0,71 | 1,92E-03 |
| ENSG00000137449 | <i>CPEB2</i> | 2,34 | 6,44E-30 | 0,73 | 1,99E-03 |
| ENSG00000006282 | <i>SPATA20</i> | 0,48 | 5,41E-07 | 0,31 | 2,07E-03 |
| ENSG00000162616 | <i>DNAJB4</i> | 0,56 | 3,07E-05 | 0,43 | 2,07E-03 |
| ENSG00000213366 | <i>GSTM2</i> | 1,54 | 1,76E-09 | 0,84 | 2,27E-03 |
| ENSG00000187790 | <i>FANCM</i> | 0,70 | 6,00E-07 | 0,45 | 2,28E-03 |
| ENSG00000111674 | <i>ENO2</i> | 1,20 | 9,59E-09 | 0,68 | 2,35E-03 |
| ENSG00000139865 | <i>TTC6</i> | 0,95 | 9,58E-06 | 0,68 | 2,39E-03 |
| ENSG00000124593 | <i>PRICKLE4</i> | 0,87 | 3,51E-03 | 0,90 | 2,46E-03 |
| ENSG00000105339 | <i>DENND3</i> | 0,72 | 7,91E-05 | 0,57 | 2,54E-03 |
| ENSG00000124508 | <i>BTN2A2</i> | 0,44 | 3,35E-04 | 0,38 | 2,60E-03 |
| ENSG00000048392 | <i>RRM2B</i> | 0,59 | 6,45E-06 | 0,41 | 2,66E-03 |
| ENSG00000176974 | <i>SHMT1</i> | 0,51 | 6,48E-06 | 0,35 | 2,69E-03 |
| ENSG00000178078 | <i>STAP2</i> | 0,77 | 1,30E-08 | 0,44 | 2,71E-03 |
| ENSG00000069712 | <i>KIAA1107</i> | 0,76 | 7,47E-03 | 0,84 | 2,75E-03 |
| ENSG00000141562 | <i>NARF</i> | 0,72 | 4,28E-11 | 0,35 | 2,77E-03 |
| ENSG00000181458 | <i>TMEM45A</i> | 1,17 | 1,74E-14 | 0,50 | 2,80E-03 |
| ENSG00000139192 | <i>TAPBPL</i> | 0,94 | 1,32E-04 | 0,76 | 2,84E-03 |
| ENSG00000167702 | <i>KIFC2</i> | 1,21 | 5,27E-09 | 0,67 | 2,87E-03 |
| ENSG00000166225 | <i>FRS2</i> | 0,90 | 2,77E-13 | 0,40 | 3,12E-03 |
| ENSG00000119946 | <i>CNNM1</i> | 0,44 | 2,20E-03 | 0,43 | 3,16E-03 |
| ENSG00000137561 | <i>TTPA</i> | 2,38 | 7,28E-18 | 0,91 | 3,21E-03 |

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| ENSG00000158987 | <i>RAPGEF6</i> | 0,71 | 6,85E-05 | 0,55 | 3,21E-03 |
| ENSG00000160446 | <i>ZDHHC12</i> | 0,92 | 2,82E-11 | 0,44 | 3,22E-03 |
| ENSG00000186104 | <i>CYP2R1</i> | 0,76 | 1,71E-06 | 0,49 | 3,25E-03 |
| ENSG00000147251 | <i>DOCK11</i> | 1,11 | 8,07E-08 | 0,65 | 3,30E-03 |
| ENSG00000145725 | <i>PPIP5K2</i> | 0,82 | 4,14E-16 | 0,32 | 3,31E-03 |
| ENSG00000187244 | <i>BCAM</i> | 0,83 | 4,11E-14 | 0,35 | 3,44E-03 |
| ENSG00000164209 | <i>SLC25A46</i> | 0,57 | 1,16E-06 | 0,36 | 3,45E-03 |
| ENSG00000197857 | <i>ZNF44</i> | 0,82 | 2,03E-05 | 0,59 | 3,51E-03 |
| ENSG00000112773 | <i>FAM46A</i> | 1,04 | 4,63E-16 | 0,41 | 3,60E-03 |
| ENSG00000114378 | <i>HYAL1</i> | 0,87 | 2,07E-13 | 0,37 | 3,63E-03 |
| ENSG00000148341 | <i>SH3GLB2</i> | 0,58 | 9,50E-05 | 0,44 | 3,70E-03 |
| ENSG00000090539 | <i>CHRD</i> | 0,53 | 2,47E-03 | 0,51 | 3,71E-03 |
| ENSG00000140398 | <i>NEIL1</i> | 0,71 | 9,81E-03 | 0,79 | 3,72E-03 |
| ENSG00000129562 | <i>DAD1</i> | 0,55 | 4,22E-10 | 0,27 | 3,75E-03 |
| ENSG00000119185 | <i>ITGB1BP1</i> | 0,61 | 7,03E-05 | 0,46 | 3,83E-03 |
| ENSG00000177169 | <i>ULK1</i> | 0,33 | 8,61E-03 | 0,36 | 3,84E-03 |
| ENSG00000115129 | <i>TP53I3</i> | 0,88 | 1,27E-08 | 0,48 | 3,99E-03 |
| ENSG00000163898 | <i>LIPH</i> | 0,90 | 7,79E-11 | 0,43 | 4,10E-03 |
| ENSG00000037042 | <i>TUBG2</i> | 0,82 | 1,66E-07 | 0,48 | 4,12E-03 |
| ENSG00000173715 | <i>C11ORF80</i> | 0,81 | 8,46E-11 | 0,39 | 4,22E-03 |
| ENSG00000105856 | <i>HBP1</i> | 0,75 | 4,09E-08 | 0,42 | 4,25E-03 |
| ENSG00000127952 | <i>STYXL1</i> | 0,50 | 1,87E-04 | 0,39 | 4,34E-03 |
| ENSG00000122507 | <i>BBS9</i> | 1,13 | 4,01E-08 | 0,63 | 4,43E-03 |
| ENSG00000008323 | <i>PLEKHG6</i> | 1,14 | 3,57E-08 | 0,63 | 4,49E-03 |
| ENSG00000127663 | <i>KDM4B</i> | 0,53 | 6,08E-05 | 0,39 | 4,49E-03 |
| ENSG00000030582 | <i>GRN</i> | 0,82 | 7,18E-24 | 0,26 | 4,66E-03 |
| ENSG00000238206 | / | 0,34 | 7,70E-03 | 0,36 | 4,67E-03 |
| ENSG00000180229 | <i>HERC2P2</i> | 0,83 | 2,46E-11 | 0,38 | 4,78E-03 |
| ENSG00000164733 | <i>CTSB</i> | 0,49 | 1,44E-09 | 0,24 | 4,80E-03 |
| ENSG00000260855 | <i>RP11-439E19.10</i> | 1,62 | 3,89E-08 | 0,90 | 4,82E-03 |
| ENSG00000196922 | <i>ZNF252</i> | 0,70 | 1,21E-08 | 0,37 | 4,83E-03 |
| ENSG00000147475 | <i>ERLIN2</i> | 0,24 | 7,35E-03 | 0,26 | 4,95E-03 |

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|-----------------|--------------------|------|----------|------|----------|
| ENSG00000132793 | <i>LPIN3</i> | 0,59 | 1,65E-03 | 0,53 | 4,98E-03 |
| ENSG00000013374 | <i>NUB1</i> | 0,45 | 7,78E-05 | 0,33 | 4,98E-03 |
| ENSG00000130529 | <i>TRPM4</i> | 0,68 | 5,87E-03 | 0,69 | 5,05E-03 |
| ENSG00000133460 | <i>SLC2A11</i> | 0,73 | 2,65E-03 | 0,69 | 5,12E-03 |
| ENSG00000197343 | <i>ZNF655</i> | 0,36 | 9,16E-04 | 0,31 | 5,17E-03 |
| ENSG00000240065 | <i>PSMB9</i> | 1,51 | 3,57E-06 | 0,97 | 5,20E-03 |
| ENSG00000138642 | <i>HERC6</i> | 1,05 | 1,30E-03 | 0,93 | 5,23E-03 |
| ENSG00000185963 | <i>BICD2</i> | 0,34 | 2,37E-03 | 0,31 | 5,26E-03 |
| ENSG00000160014 | <i>CALM1</i> | 0,40 | 2,48E-06 | 0,25 | 5,28E-03 |
| ENSG00000090989 | <i>EXOC1</i> | 0,44 | 1,46E-04 | 0,34 | 5,35E-03 |
| ENSG00000033627 | <i>ATP6V0A1</i> | 0,45 | 5,80E-05 | 0,32 | 5,35E-03 |
| ENSG00000205060 | <i>SLC35B4</i> | 0,37 | 3,10E-04 | 0,29 | 5,35E-03 |
| ENSG00000119801 | <i>YPEL5</i> | 0,62 | 2,49E-06 | 0,39 | 5,38E-03 |
| ENSG00000088926 | <i>F11</i> | 0,64 | 3,27E-03 | 0,61 | 5,47E-03 |
| ENSG00000164344 | <i>KLKB1</i> | 1,03 | 2,33E-03 | 0,95 | 5,59E-03 |
| ENSG00000177706 | <i>FAM20C</i> | 0,73 | 2,21E-06 | 0,45 | 5,88E-03 |
| ENSG00000151458 | <i>ANKRD50</i> | 0,42 | 3,75E-04 | 0,34 | 5,93E-03 |
| ENSG00000168016 | <i>TRANK1</i> | 1,25 | 9,24E-06 | 0,83 | 6,01E-03 |
| ENSG00000167657 | <i>DAPK3</i> | 0,65 | 7,33E-08 | 0,35 | 6,02E-03 |
| ENSG00000230551 | <i>CTB-89H12.4</i> | 0,55 | 7,00E-03 | 0,55 | 6,06E-03 |
| ENSG00000128524 | <i>ATP6V1F</i> | 0,69 | 9,92E-08 | 0,38 | 6,08E-03 |
| ENSG00000174977 | <i>AC026271.5</i> | 0,82 | 2,58E-03 | 0,76 | 6,19E-03 |
| ENSG00000196172 | <i>ZNF681</i> | 1,13 | 4,69E-10 | 0,54 | 6,49E-03 |
| ENSG00000188243 | <i>COMMD6</i> | 0,60 | 1,26E-03 | 0,52 | 6,60E-03 |
| ENSG00000187954 | <i>CYHR1</i> | 0,43 | 1,42E-03 | 0,38 | 6,63E-03 |
| ENSG00000185100 | <i>ADSSL1</i> | 0,99 | 2,50E-03 | 0,90 | 6,63E-03 |
| ENSG00000100417 | <i>PMM1</i> | 0,60 | 2,06E-03 | 0,54 | 6,65E-03 |
| ENSG00000143036 | <i>SLC44A3</i> | 0,66 | 4,28E-08 | 0,35 | 6,66E-03 |
| ENSG00000120868 | <i>APAF1</i> | 0,34 | 2,49E-03 | 0,31 | 6,66E-03 |
| ENSG00000135241 | <i>PNPLA8</i> | 0,42 | 7,81E-04 | 0,34 | 6,67E-03 |
| ENSG00000156587 | <i>UBE2L6</i> | 0,70 | 2,53E-06 | 0,43 | 6,71E-03 |
| ENSG00000174917 | <i>C19ORF70</i> | 0,67 | 1,33E-05 | 0,44 | 6,84E-03 |

| | | | | | |
|-----------------|------------------|------|----------|------|----------|
| ENSG00000170502 | <i>NUDT9</i> | 0,32 | 6,89E-03 | 0,32 | 6,85E-03 |
| ENSG00000106479 | <i>ZNF862</i> | 1,07 | 3,29E-05 | 0,74 | 6,95E-03 |
| ENSG00000119922 | <i>IFIT2</i> | 1,18 | 5,90E-04 | 0,95 | 6,96E-03 |
| ENSG00000117791 | <i>MOSC2</i> | 0,77 | 1,96E-07 | 0,43 | 7,10E-03 |
| ENSG00000127419 | <i>TMEM175</i> | 0,84 | 2,67E-06 | 0,52 | 7,16E-03 |
| ENSG00000067715 | <i>SYT1</i> | 1,36 | 7,16E-11 | 0,62 | 7,23E-03 |
| ENSG00000157823 | <i>AP3S2</i> | 0,89 | 3,68E-06 | 0,55 | 7,33E-03 |
| ENSG00000130150 | <i>MOSPD2</i> | 0,98 | 8,90E-08 | 0,53 | 7,48E-03 |
| ENSG00000135164 | <i>DMTF1</i> | 0,32 | 6,03E-03 | 0,31 | 7,52E-03 |
| ENSG00000105784 | <i>RUNDC3B</i> | 1,12 | 3,65E-04 | 0,87 | 7,59E-03 |
| ENSG00000154917 | <i>RAB6B</i> | 0,83 | 7,04E-07 | 0,48 | 7,76E-03 |
| ENSG00000114796 | <i>KLHL24</i> | 0,80 | 3,33E-08 | 0,42 | 8,01E-03 |
| ENSG00000224051 | <i>CPTP</i> | 0,87 | 1,67E-07 | 0,47 | 8,13E-03 |
| ENSG00000179750 | <i>APOBEC3B</i> | 0,75 | 4,54E-03 | 0,70 | 8,27E-03 |
| ENSG00000168591 | <i>TMUB2</i> | 0,47 | 5,65E-06 | 0,29 | 8,32E-03 |
| ENSG00000123159 | <i>GIPC1</i> | 0,37 | 1,68E-03 | 0,32 | 8,32E-03 |
| ENSG00000172671 | <i>ANUBL1</i> | 1,41 | 3,75E-08 | 0,74 | 8,33E-03 |
| ENSG00000043143 | <i>PHF15</i> | 0,74 | 4,73E-05 | 0,50 | 8,52E-03 |
| ENSG00000137267 | <i>TUBB2A</i> | 0,70 | 7,58E-10 | 0,33 | 8,60E-03 |
| ENSG00000152270 | <i>PDE3B</i> | 0,61 | 3,69E-05 | 0,41 | 8,62E-03 |
| ENSG00000139194 | <i>RBP5</i> | 0,89 | 9,85E-05 | 0,63 | 8,78E-03 |
| ENSG00000163032 | <i>VSNL1</i> | 0,68 | 1,66E-05 | 0,44 | 8,80E-03 |
| ENSG00000196139 | <i>AKR1C3</i> | 1,10 | 1,84E-06 | 0,65 | 8,82E-03 |
| ENSG00000109819 | <i>PPARGC1A</i> | 1,05 | 4,55E-15 | 0,39 | 8,86E-03 |
| ENSG00000143303 | <i>C1ORF66</i> | 0,61 | 3,98E-05 | 0,41 | 9,13E-03 |
| ENSG00000214719 | <i>LRRC37B2</i> | 1,87 | 7,62E-23 | 0,57 | 9,23E-03 |
| ENSG00000118596 | <i>SLC16A7</i> | 0,75 | 7,80E-11 | 0,33 | 9,39E-03 |
| ENSG00000118308 | <i>LRMP</i> | 1,48 | 2,50E-07 | 0,81 | 9,41E-03 |
| ENSG00000100106 | <i>TRIOBP</i> | 0,73 | 8,21E-04 | 0,58 | 9,42E-03 |
| ENSG00000178301 | <i>AQP11</i> | 1,69 | 1,32E-10 | 0,76 | 9,48E-03 |
| ENSG00000079974 | <i>RABL2B</i> | 0,56 | 8,55E-03 | 0,55 | 9,53E-03 |
| ENSG00000237945 | <i>LINC00649</i> | 0,87 | 6,60E-07 | 0,49 | 9,67E-03 |

| | | | | | |
|-----------------|-----|------|----------|------|----------|
| ENSG00000171298 | GAA | 0,67 | 1,98E-14 | 0,25 | 9,72E-03 |
|-----------------|-----|------|----------|------|----------|

S8. Upregulated genes (n=201) after Inc18q22.2 knockdown in HepG2 and Hep3B. FDR<0.01.

| Ensembl Gene ID | Official gene name | HepG2 | | | | Hep3B | | | |
|-----------------|--------------------|----------------|-----------|----------------|-----------|----------------|----------|----------------|-----------|
| | | KD1 vs Mock | | KD2 vs Mock | | KD1 vs Mock | | KD2 vs Mock | |
| | | log2FoldChange | FDR | log2FoldChange | FDR | log2FoldChange | FDR | log2FoldChange | FDR |
| ENSG00000196975 | <i>ANXA4</i> | 1,28 | 2,59E-78 | 1,88 | 1,18E-170 | 0,61 | 7,27E-12 | 0,94 | 5,87E-27 |
| ENSG00000165092 | <i>ALDH1A1</i> | 2,16 | 1,31E-228 | 1,64 | 1,06E-130 | 0,34 | 3,31E-09 | 1,19 | 9,32E-107 |
| ENSG00000162817 | <i>C1ORF115</i> | 2,06 | 3,43E-162 | 1,62 | 5,47E-98 | 1,27 | 8,72E-37 | 1,25 | 6,64E-36 |
| ENSG00000172296 | <i>SPTLC3</i> | 1,00 | 1,08E-41 | 1,31 | 2,08E-71 | 1,08 | 3,88E-05 | 1,31 | 3,64E-07 |
| ENSG00000168385 | <i>SEPT2</i> | 0,89 | 2,91E-51 | 0,88 | 3,17E-49 | 0,68 | 7,98E-27 | 0,68 | 9,82E-27 |
| ENSG00000172239 | <i>LOC645139</i> | 1,18 | 3,96E-37 | 1,20 | 2,77E-38 | 0,71 | 1,27E-13 | 0,72 | 4,91E-14 |
| ENSG00000113790 | <i>EHHADH</i> | 0,77 | 5,77E-14 | 1,26 | 5,60E-37 | 1,04 | 1,22E-17 | 0,62 | 8,77E-07 |
| ENSG00000102931 | <i>ARL2BP</i> | 1,93 | 1,38E-51 | 1,64 | 4,87E-36 | 1,74 | 3,67E-22 | 0,92 | 1,97E-06 |
| ENSG00000178988 | <i>MRFAP1L1</i> | 1,21 | 5,90E-34 | 1,25 | 5,24E-36 | 0,59 | 8,24E-08 | 1,38 | 6,49E-42 |
| ENSG00000117528 | <i>ABCD3</i> | 0,94 | 2,81E-40 | 0,88 | 1,99E-34 | 0,94 | 8,11E-24 | 1,21 | 2,13E-39 |
| ENSG00000256162 | <i>SMLR1</i> | 0,69 | 2,10E-24 | 0,83 | 4,00E-34 | 0,81 | 5,06E-06 | 1,21 | 1,44E-12 |
| ENSG00000131242 | <i>RAB11FIP4</i> | 0,88 | 1,87E-33 | 0,90 | 4,86E-34 | 0,72 | 8,94E-15 | 0,84 | 3,42E-20 |
| ENSG00000166450 | <i>PRTG</i> | 0,46 | 1,69E-06 | 1,08 | 2,04E-33 | 0,95 | 4,08E-06 | 0,91 | 1,09E-05 |
| ENSG00000113583 | <i>C5ORF15</i> | 0,75 | 8,20E-16 | 1,09 | 4,39E-33 | 0,76 | 1,35E-10 | 0,76 | 1,45E-10 |
| ENSG00000111897 | <i>SERINC1</i> | 0,60 | 4,97E-12 | 1,01 | 5,17E-33 | 0,42 | 4,99E-09 | 0,71 | 1,39E-24 |
| ENSG00000134962 | <i>KLB</i> | 0,52 | 1,24E-11 | 0,84 | 1,23E-29 | 0,45 | 6,21E-09 | 0,44 | 3,35E-08 |
| ENSG00000104371 | <i>DKK4</i> | 2,09 | 2,71E-14 | 3,02 | 1,23E-29 | 1,94 | 4,90E-08 | 2,48 | 1,32E-12 |
| ENSG00000196502 | <i>SULT1A1</i> | 0,79 | 1,91E-24 | 0,87 | 2,21E-29 | 0,80 | 1,47E-08 | 1,08 | 3,40E-15 |
| ENSG00000144118 | <i>RALB</i> | 1,26 | 4,73E-29 | 1,27 | 3,73E-29 | 0,68 | 1,11E-09 | 0,73 | 6,36E-11 |
| ENSG00000182326 | <i>C1S</i> | 1,84 | 2,36E-56 | 1,27 | 4,29E-26 | 0,90 | 5,10E-16 | 0,48 | 4,40E-05 |
| ENSG00000165410 | <i>CFL2</i> | 0,62 | 8,11E-20 | 0,71 | 5,99E-25 | 0,61 | 9,31E-11 | 0,35 | 3,35E-04 |

Hepatology

| | | | | | | | | | |
|-----------------|-----------------|------|-----------|------|----------|------|-----------|------|-----------|
| ENSG0000081051 | <i>AFP</i> | 0,62 | 1,74E-18 | 0,73 | 2,01E-24 | 1,31 | 6,18E-56 | 1,31 | 6,28E-56 |
| ENSG00000112078 | <i>KCTD20</i> | 0,65 | 1,61E-17 | 0,77 | 3,52E-24 | 0,66 | 9,06E-15 | 0,93 | 1,87E-29 |
| ENSG00000120697 | <i>ALG5</i> | 1,07 | 1,62E-13 | 1,44 | 4,73E-24 | 0,92 | 4,30E-09 | 1,19 | 3,47E-15 |
| ENSG00000096092 | <i>TMEM14A</i> | 1,76 | 2,39E-53 | 1,20 | 5,89E-24 | 0,80 | 3,06E-11 | 0,44 | 6,40E-04 |
| ENSG00000134049 | <i>IER3IP1</i> | 1,00 | 2,11E-15 | 1,26 | 7,37E-24 | 0,77 | 4,17E-03 | 1,07 | 2,71E-05 |
| ENSG00000072210 | <i>ALDH3A2</i> | 0,65 | 2,60E-19 | 0,72 | 2,25E-23 | 1,00 | 5,68E-48 | 1,14 | 3,51E-62 |
| ENSG00000151632 | <i>AKR1C2</i> | 1,89 | 5,68E-140 | 0,77 | 2,30E-23 | 1,61 | 4,41E-49 | 1,24 | 3,26E-29 |
| ENSG00000134717 | <i>BTF3L4</i> | 0,45 | 1,04E-04 | 1,08 | 2,33E-23 | 1,38 | 1,93E-32 | 1,75 | 2,23E-53 |
| ENSG00000186106 | <i>ANKRD46</i> | 0,53 | 7,69E-05 | 1,24 | 2,52E-23 | 0,97 | 2,62E-15 | 1,26 | 1,05E-25 |
| ENSG00000165526 | <i>RPUSD4</i> | 0,58 | 2,07E-07 | 1,03 | 3,80E-22 | 0,77 | 1,62E-07 | 1,50 | 2,13E-27 |
| ENSG00000130779 | <i>CLIP1</i> | 0,38 | 3,28E-05 | 0,83 | 6,21E-22 | 0,53 | 7,40E-09 | 0,84 | 4,62E-21 |
| ENSG00000163624 | <i>CDS1</i> | 0,56 | 5,71E-04 | 1,41 | 1,40E-21 | 2,26 | 1,34E-36 | 1,60 | 4,39E-18 |
| ENSG00000152601 | <i>MBNL1</i> | 1,01 | 2,85E-30 | 0,86 | 1,62E-21 | 0,90 | 2,25E-22 | 1,10 | 2,84E-33 |
| ENSG00000146416 | <i>AIG1</i> | 0,67 | 3,12E-14 | 0,82 | 2,01E-20 | 1,01 | 3,56E-18 | 0,49 | 8,48E-05 |
| ENSG00000102753 | <i>KPNA3</i> | 0,55 | 1,69E-11 | 0,74 | 3,78E-20 | 0,62 | 1,70E-08 | 0,47 | 2,72E-05 |
| ENSG00000115425 | <i>PECR</i> | 0,63 | 4,43E-14 | 0,76 | 7,48E-20 | 0,58 | 4,13E-06 | 0,61 | 1,23E-06 |
| ENSG00000196937 | <i>FAM3C</i> | 0,44 | 2,44E-03 | 1,19 | 1,64E-19 | 1,47 | 1,76E-32 | 1,87 | 1,02E-53 |
| ENSG00000121578 | <i>B4GALT4</i> | 0,41 | 1,36E-03 | 1,04 | 2,09E-19 | 0,43 | 7,40E-04 | 0,98 | 6,56E-17 |
| ENSG00000138823 | <i>MTTP</i> | 1,07 | 1,68E-31 | 0,83 | 7,26E-19 | 2,10 | 5,03E-134 | 1,98 | 5,93E-120 |
| ENSG00000139324 | <i>TMTC3</i> | 1,15 | 5,63E-22 | 1,07 | 8,14E-19 | 0,89 | 1,57E-16 | 0,57 | 3,37E-07 |
| ENSG00000153130 | <i>SCOC</i> | 0,41 | 5,01E-05 | 0,85 | 1,13E-18 | 0,80 | 5,87E-14 | 0,73 | 1,42E-11 |
| ENSG00000121858 | <i>TNFSF10</i> | 0,79 | 1,81E-14 | 0,90 | 2,46E-18 | 1,60 | 3,53E-09 | 1,27 | 4,94E-06 |
| ENSG00000153066 | <i>TXNDC11</i> | 0,52 | 4,01E-10 | 0,70 | 1,49E-17 | 0,99 | 2,54E-21 | 0,83 | 4,28E-15 |
| ENSG00000111052 | <i>LIN7A</i> | 0,49 | 1,34E-06 | 0,82 | 2,34E-17 | 0,75 | 7,53E-16 | 0,71 | 3,33E-14 |
| ENSG00000166035 | <i>LIPC</i> | 0,64 | 2,30E-08 | 0,94 | 4,65E-17 | 0,83 | 2,82E-12 | 0,94 | 1,86E-15 |
| ENSG00000110169 | <i>HPX</i> | 1,70 | 8,79E-22 | 1,51 | 5,94E-17 | 1,87 | 1,92E-88 | 0,72 | 3,49E-13 |
| ENSG00000151090 | <i>THRB</i> | 1,27 | 3,34E-32 | 0,91 | 2,88E-16 | 1,10 | 2,92E-30 | 1,01 | 9,02E-26 |
| ENSG00000204899 | <i>C13ORF37</i> | 0,81 | 9,49E-09 | 1,12 | 3,25E-16 | 1,13 | 1,11E-09 | 0,91 | 2,23E-06 |
| ENSG00000137831 | <i>UACA</i> | 0,58 | 1,10E-06 | 0,93 | 7,52E-16 | 1,42 | 6,73E-41 | 0,49 | 2,06E-05 |
| ENSG00000204128 | <i>C2ORF72</i> | 0,66 | 3,06E-22 | 0,56 | 8,10E-16 | 0,85 | 1,55E-20 | 0,68 | 1,98E-13 |
| ENSG00000170456 | <i>DENND5B</i> | 0,42 | 1,63E-05 | 0,73 | 2,18E-15 | 0,40 | 1,59E-03 | 0,62 | 4,01E-07 |
| ENSG00000184117 | <i>NIPSNAP1</i> | 0,30 | 2,21E-04 | 0,61 | 2,82E-15 | 0,37 | 1,72E-05 | 0,40 | 1,91E-06 |

| | | | | | | | | | |
|-----------------|-----------------|------|-----------|------|----------|------|-----------|------|----------|
| ENSG00000170899 | <i>GSTA4</i> | 1,03 | 3,34E-20 | 0,89 | 5,98E-15 | 1,01 | 1,53E-12 | 0,72 | 1,17E-06 |
| ENSG00000175854 | <i>C9ORF119</i> | 0,86 | 1,83E-08 | 1,17 | 9,36E-15 | 0,74 | 1,57E-07 | 0,80 | 1,20E-08 |
| ENSG00000104325 | <i>DECR1</i> | 0,94 | 1,04E-18 | 0,84 | 9,69E-15 | 0,82 | 3,35E-19 | 1,15 | 3,86E-38 |
| ENSG00000131981 | <i>LGALS3</i> | 0,36 | 1,04E-03 | 0,78 | 3,02E-14 | 0,92 | 6,06E-09 | 0,74 | 4,66E-06 |
| ENSG00000077254 | <i>USP33</i> | 0,72 | 3,69E-11 | 0,82 | 3,15E-14 | 0,60 | 1,38E-06 | 0,66 | 9,05E-08 |
| ENSG00000143322 | <i>ABL2</i> | 0,60 | 1,42E-08 | 0,78 | 8,17E-14 | 0,60 | 1,10E-07 | 0,39 | 8,90E-04 |
| ENSG00000023909 | <i>GCLM</i> | 0,84 | 3,34E-16 | 0,76 | 5,38E-13 | 0,62 | 1,04E-07 | 0,40 | 1,25E-03 |
| ENSG00000072364 | <i>AFF4</i> | 0,51 | 1,94E-10 | 0,57 | 1,87E-12 | 0,75 | 2,60E-23 | 0,71 | 1,56E-20 |
| ENSG00000181019 | <i>NQO1</i> | 1,33 | 1,28E-70 | 0,55 | 2,36E-12 | 0,91 | 1,02E-27 | 0,97 | 1,48E-31 |
| ENSG00000196083 | <i>IL1RAP</i> | 0,57 | 4,78E-09 | 0,67 | 5,87E-12 | 1,28 | 1,33E-50 | 0,62 | 3,14E-12 |
| ENSG00000128311 | <i>TST</i> | 0,55 | 2,78E-06 | 0,79 | 6,59E-12 | 0,82 | 1,05E-11 | 0,90 | 4,32E-14 |
| ENSG00000116774 | <i>OLFML3</i> | 2,58 | 2,21E-30 | 1,63 | 9,13E-12 | 0,51 | 6,29E-08 | 0,37 | 1,52E-04 |
| ENSG00000106853 | <i>PTGR1</i> | 2,74 | 2,92E-65 | 1,17 | 1,50E-11 | 2,80 | 1,79E-121 | 1,72 | 1,74E-44 |
| ENSG00000117280 | <i>RAB7L1</i> | 0,77 | 1,98E-07 | 0,98 | 1,50E-11 | 0,70 | 5,73E-12 | 0,49 | 4,28E-06 |
| ENSG00000166483 | <i>WEE1</i> | 0,39 | 5,10E-04 | 0,72 | 1,85E-11 | 0,46 | 5,35E-07 | 0,64 | 3,09E-13 |
| ENSG00000125144 | <i>MT1G</i> | 1,80 | 3,38E-13 | 1,68 | 2,00E-11 | 1,59 | 5,79E-08 | 1,08 | 4,67E-04 |
| ENSG00000092841 | <i>MYL6</i> | 0,24 | 5,84E-03 | 0,55 | 2,33E-11 | 0,46 | 3,82E-08 | 0,54 | 6,00E-11 |
| ENSG00000197535 | <i>MYO5A</i> | 0,81 | 2,94E-09 | 0,90 | 3,74E-11 | 0,83 | 1,60E-08 | 1,35 | 5,23E-22 |
| ENSG00000159322 | <i>ADPGK</i> | 0,36 | 8,65E-04 | 0,66 | 1,11E-10 | 0,31 | 5,10E-03 | 0,46 | 1,74E-05 |
| ENSG00000132437 | <i>DDC</i> | 0,98 | 6,70E-22 | 0,68 | 1,61E-10 | 1,83 | 4,35E-28 | 1,32 | 1,45E-14 |
| ENSG00000108479 | <i>GALK1</i> | 0,91 | 3,25E-17 | 0,71 | 1,84E-10 | 1,29 | 6,23E-27 | 0,51 | 8,98E-05 |
| ENSG00000170873 | <i>MTSS1</i> | 0,69 | 2,03E-14 | 0,58 | 5,67E-10 | 0,80 | 3,97E-08 | 0,87 | 1,99E-09 |
| ENSG00000145703 | <i>IQGAP2</i> | 0,57 | 4,14E-16 | 0,45 | 6,88E-10 | 0,56 | 1,55E-07 | 0,66 | 3,46E-10 |
| ENSG00000198074 | <i>AKR1B10</i> | 2,76 | 4,56E-120 | 0,79 | 1,05E-09 | 1,03 | 1,66E-06 | 1,25 | 3,40E-09 |
| ENSG00000151413 | <i>NUBPL</i> | 0,92 | 7,12E-19 | 0,66 | 1,19E-09 | 1,11 | 7,73E-10 | 0,74 | 9,81E-05 |
| ENSG00000029364 | <i>SLC39A9</i> | 0,73 | 2,17E-17 | 0,54 | 1,39E-09 | 0,61 | 2,06E-13 | 0,61 | 2,73E-13 |
| ENSG00000234127 | <i>TRIM26</i> | 1,10 | 4,55E-30 | 0,62 | 1,54E-09 | 0,53 | 1,76E-09 | 0,69 | 6,47E-16 |
| ENSG00000120860 | <i>CCDC53</i> | 0,70 | 2,79E-05 | 0,97 | 1,71E-09 | 0,99 | 1,09E-06 | 1,06 | 1,57E-07 |
| ENSG00000105852 | <i>PON3</i> | 1,22 | 2,49E-18 | 0,88 | 2,07E-09 | 0,50 | 1,84E-03 | 0,78 | 2,51E-07 |
| ENSG00000177565 | <i>TBL1XR1</i> | 0,83 | 4,06E-17 | 0,62 | 2,28E-09 | 1,27 | 1,96E-64 | 0,40 | 5,97E-07 |
| ENSG00000143819 | <i>EPHX1</i> | 1,53 | 1,10E-69 | 0,56 | 2,33E-09 | 1,28 | 1,38E-40 | 0,79 | 1,24E-15 |
| ENSG00000095209 | <i>TMEM38B</i> | 0,47 | 3,93E-04 | 0,76 | 2,67E-09 | 0,73 | 1,54E-08 | 0,61 | 3,26E-06 |

| | | | | | | | | | |
|------------------|---------------------|------|----------|------|----------|------|----------|------|----------|
| ENSG00000013583 | <i>HEBP1</i> | 0,96 | 6,95E-11 | 0,89 | 3,69E-09 | 1,58 | 1,18E-26 | 1,24 | 1,42E-16 |
| ENSG00000039068 | <i>CDH1</i> | 0,81 | 3,11E-08 | 0,85 | 7,83E-09 | 1,29 | 6,53E-36 | 0,87 | 3,60E-16 |
| ENSG000000113494 | <i>PRLR</i> | 0,34 | 5,72E-03 | 0,67 | 7,83E-09 | 0,90 | 1,21E-08 | 1,00 | 1,79E-10 |
| ENSG000000042286 | <i>AIFM2</i> | 0,80 | 1,22E-16 | 0,58 | 9,09E-09 | 0,64 | 3,31E-10 | 0,49 | 2,66E-06 |
| ENSG000000147475 | <i>ERLIN2</i> | 0,29 | 9,14E-04 | 0,48 | 1,03E-08 | 0,24 | 7,35E-03 | 0,26 | 4,95E-03 |
| ENSG000000145476 | <i>CYP4V2</i> | 0,60 | 9,23E-05 | 0,85 | 1,21E-08 | 1,28 | 1,71E-20 | 0,99 | 2,14E-12 |
| ENSG00000070061 | <i>IKBKAP</i> | 0,56 | 2,20E-16 | 0,40 | 1,26E-08 | 0,33 | 1,97E-04 | 1,03 | 1,17E-35 |
| ENSG00000014641 | <i>MDH1</i> | 0,26 | 1,53E-03 | 0,45 | 1,30E-08 | 0,26 | 1,19E-03 | 0,34 | 1,35E-05 |
| ENSG000000161533 | <i>ACOX1</i> | 0,43 | 3,93E-09 | 0,42 | 1,43E-08 | 0,84 | 6,40E-29 | 0,30 | 2,53E-04 |
| ENSG000000183978 | <i>CCDC56</i> | 0,65 | 1,21E-11 | 0,56 | 1,81E-08 | 0,43 | 1,76E-05 | 0,38 | 1,58E-04 |
| ENSG000000197165 | <i>SULT1A2</i> | 1,07 | 1,26E-17 | 0,74 | 2,22E-08 | 0,94 | 2,15E-07 | 0,88 | 1,95E-06 |
| ENSG000000131018 | <i>SYNE1</i> | 1,43 | 1,93E-44 | 0,61 | 3,03E-08 | 0,98 | 1,40E-16 | 0,43 | 9,84E-04 |
| ENSG000000143158 | <i>BRP44</i> | 0,89 | 1,80E-14 | 0,67 | 3,45E-08 | 0,50 | 6,26E-11 | 0,39 | 4,73E-07 |
| ENSG000000166974 | <i>MAPRE2</i> | 0,27 | 9,23E-03 | 0,53 | 5,41E-08 | 0,48 | 4,13E-03 | 0,60 | 2,54E-04 |
| ENSG000000142166 | <i>IFNAR1</i> | 0,49 | 3,28E-07 | 0,52 | 6,71E-08 | 0,61 | 2,84E-12 | 0,70 | 7,99E-16 |
| ENSG000000117305 | <i>HMGCL</i> | 0,49 | 1,60E-04 | 0,68 | 8,00E-08 | 0,96 | 9,34E-18 | 0,44 | 3,13E-04 |
| ENSG000000141034 | <i>C17ORF39</i> | 0,58 | 1,36E-03 | 0,93 | 9,47E-08 | 1,14 | 3,17E-10 | 1,19 | 4,41E-11 |
| ENSG000000180667 | <i>YOD1</i> | 0,45 | 1,02E-03 | 0,69 | 9,49E-08 | 0,71 | 1,09E-14 | 0,45 | 2,56E-06 |
| ENSG000000006282 | <i>SPATA20</i> | 0,92 | 3,69E-21 | 0,55 | 9,51E-08 | 0,48 | 5,41E-07 | 0,31 | 2,07E-03 |
| ENSG000000139410 | <i>SDSL</i> | 0,92 | 1,20E-03 | 1,45 | 9,93E-08 | 0,66 | 2,87E-03 | 0,82 | 1,32E-04 |
| ENSG000000166311 | <i>SMPD1</i> | 0,85 | 4,83E-07 | 0,90 | 1,08E-07 | 1,03 | 2,64E-21 | 0,96 | 1,50E-18 |
| ENSG000000176974 | <i>SHMT1</i> | 0,82 | 1,94E-14 | 0,60 | 1,32E-07 | 0,51 | 6,48E-06 | 0,35 | 2,69E-03 |
| ENSG000000004897 | <i>CDC27</i> | 0,22 | 5,14E-03 | 0,40 | 1,42E-07 | 0,53 | 1,90E-10 | 0,70 | 1,18E-17 |
| ENSG000000120948 | <i>TARDBP</i> | 0,41 | 6,75E-08 | 0,40 | 1,45E-07 | 0,21 | 9,33E-03 | 0,57 | 5,29E-15 |
| ENSG000000205423 | <i>LOC100130176</i> | 0,69 | 1,12E-06 | 0,75 | 1,53E-07 | 0,80 | 5,47E-05 | 0,77 | 1,41E-04 |
| ENSG000000124120 | <i>TTPAL</i> | 0,76 | 2,19E-13 | 0,56 | 1,97E-07 | 0,42 | 2,99E-04 | 0,82 | 1,03E-13 |
| ENSG000000155640 | <i>C10ORF12</i> | 0,70 | 8,48E-05 | 0,91 | 2,48E-07 | 0,83 | 2,80E-06 | 1,32 | 6,03E-15 |
| ENSG000000094631 | <i>HDAC6</i> | 0,63 | 1,97E-12 | 0,48 | 2,62E-07 | 0,71 | 7,94E-09 | 0,56 | 9,93E-06 |
| ENSG000000135617 | <i>C2ORF7</i> | 1,23 | 3,31E-14 | 0,88 | 2,65E-07 | 0,99 | 2,75E-13 | 0,92 | 1,15E-11 |
| ENSG000000139865 | <i>TTC6</i> | 0,98 | 1,88E-09 | 0,86 | 2,86E-07 | 0,95 | 9,58E-06 | 0,68 | 2,39E-03 |
| ENSG000000106789 | <i>CORO2A</i> | 0,50 | 3,91E-07 | 0,51 | 3,02E-07 | 0,98 | 2,27E-19 | 0,88 | 9,79E-16 |
| ENSG000000172955 | <i>ADH6</i> | 0,82 | 1,20E-30 | 0,39 | 3,15E-07 | 0,78 | 2,03E-04 | 0,85 | 4,48E-05 |

| | | | | | | | | | |
|-----------------|-----------------|------|----------|------|----------|------|----------|------|----------|
| ENSG00000181274 | <i>FRAT2</i> | 0,86 | 1,94E-08 | 0,80 | 3,33E-07 | 1,33 | 4,24E-23 | 0,78 | 2,60E-08 |
| ENSG00000139194 | <i>RBP5</i> | 1,03 | 2,90E-08 | 0,96 | 4,54E-07 | 0,89 | 9,85E-05 | 0,63 | 8,78E-03 |
| ENSG00000136935 | <i>GOLGA1</i> | 0,73 | 3,56E-13 | 0,53 | 4,69E-07 | 0,63 | 1,46E-07 | 0,68 | 7,87E-09 |
| ENSG00000163644 | <i>PPM1K</i> | 0,76 | 5,45E-04 | 1,07 | 5,66E-07 | 0,66 | 3,31E-03 | 1,18 | 1,58E-08 |
| ENSG00000197780 | <i>TAF13</i> | 0,64 | 1,71E-05 | 0,73 | 6,58E-07 | 0,58 | 3,89E-06 | 0,77 | 2,67E-10 |
| ENSG00000137561 | <i>TTPA</i> | 2,11 | 7,06E-19 | 1,27 | 8,09E-07 | 2,38 | 7,28E-18 | 0,91 | 3,21E-03 |
| ENSG00000075945 | <i>KIFAP3</i> | 0,87 | 7,36E-08 | 0,82 | 8,63E-07 | 0,89 | 2,13E-14 | 0,71 | 1,66E-09 |
| ENSG00000152056 | <i>AP1S3</i> | 0,56 | 1,03E-03 | 0,81 | 1,11E-06 | 0,84 | 2,15E-10 | 0,75 | 1,81E-08 |
| ENSG00000170445 | <i>HARS</i> | 0,32 | 2,76E-03 | 0,50 | 1,24E-06 | 0,40 | 4,09E-04 | 0,75 | 3,42E-12 |
| ENSG00000124508 | <i>BTN2A2</i> | 0,72 | 4,45E-05 | 0,83 | 2,41E-06 | 0,44 | 3,35E-04 | 0,38 | 2,60E-03 |
| ENSG00000116906 | <i>GNPAT</i> | 0,60 | 3,54E-15 | 0,38 | 2,53E-06 | 0,31 | 5,46E-04 | 0,56 | 2,73E-11 |
| ENSG00000185787 | <i>MORF4</i> | 0,29 | 2,40E-05 | 0,32 | 2,79E-06 | 0,35 | 1,17E-07 | 0,35 | 2,14E-07 |
| ENSG00000006576 | <i>PHTF2</i> | 0,44 | 3,85E-03 | 0,67 | 3,06E-06 | 0,65 | 1,98E-13 | 0,69 | 1,18E-14 |
| ENSG00000127952 | <i>STYXL1</i> | 0,55 | 1,34E-03 | 0,77 | 3,49E-06 | 0,50 | 1,87E-04 | 0,39 | 4,34E-03 |
| ENSG00000135387 | <i>CAPRIN1</i> | 0,63 | 2,39E-25 | 0,30 | 3,57E-06 | 0,24 | 7,62E-04 | 0,27 | 1,12E-04 |
| ENSG00000106780 | <i>MEGF9</i> | 0,42 | 8,28E-05 | 0,49 | 4,87E-06 | 0,60 | 6,53E-10 | 0,70 | 2,10E-13 |
| ENSG00000118564 | <i>FBXL5</i> | 0,52 | 1,55E-05 | 0,55 | 5,42E-06 | 0,61 | 1,16E-08 | 0,41 | 1,98E-04 |
| ENSG00000178537 | <i>SLC25A20</i> | 1,36 | 1,26E-27 | 0,62 | 6,28E-06 | 1,17 | 2,61E-21 | 0,81 | 2,48E-10 |
| ENSG00000103496 | <i>STX4</i> | 0,69 | 6,43E-08 | 0,60 | 6,46E-06 | 0,90 | 2,88E-10 | 0,57 | 1,36E-04 |
| ENSG00000145217 | <i>SLC26A1</i> | 0,92 | 1,48E-10 | 0,68 | 6,91E-06 | 1,14 | 2,19E-15 | 1,11 | 1,21E-14 |
| ENSG00000083799 | <i>CYLD</i> | 0,46 | 1,27E-04 | 0,54 | 7,56E-06 | 0,55 | 8,15E-05 | 0,48 | 7,61E-04 |
| ENSG00000130988 | <i>RGN</i> | 0,75 | 4,43E-12 | 0,51 | 8,36E-06 | 1,69 | 8,60E-23 | 1,16 | 8,86E-11 |
| ENSG00000164124 | <i>TMEM144</i> | 0,50 | 2,51E-03 | 0,70 | 1,14E-05 | 1,25 | 1,72E-18 | 1,22 | 8,99E-18 |
| ENSG00000159403 | <i>C1R</i> | 1,26 | 1,70E-06 | 1,17 | 1,47E-05 | 0,86 | 3,94E-06 | 0,77 | 5,14E-05 |
| ENSG00000079974 | <i>RABL2B</i> | 0,86 | 8,44E-06 | 0,84 | 2,01E-05 | 0,56 | 8,55E-03 | 0,55 | 9,53E-03 |
| ENSG00000173193 | <i>PARP14</i> | 1,55 | 1,51E-45 | 0,51 | 3,20E-05 | 0,98 | 6,67E-20 | 0,81 | 6,40E-14 |
| ENSG00000172007 | <i>RAB33B</i> | 0,68 | 5,36E-05 | 0,71 | 3,34E-05 | 0,74 | 3,50E-06 | 0,64 | 8,94E-05 |
| ENSG00000142156 | <i>COL6A1</i> | 0,87 | 1,39E-10 | 0,60 | 3,36E-05 | 1,06 | 4,21E-13 | 0,89 | 2,05E-09 |
| ENSG00000005469 | <i>CROT</i> | 0,78 | 1,04E-08 | 0,59 | 3,77E-05 | 1,49 | 4,87E-38 | 0,87 | 4,47E-13 |
| ENSG00000198689 | <i>SLC9A6</i> | 0,81 | 1,98E-06 | 0,72 | 4,42E-05 | 1,00 | 1,36E-10 | 0,70 | 1,37E-05 |
| ENSG00000180198 | <i>RCC1</i> | 0,40 | 6,85E-06 | 0,38 | 4,48E-05 | 0,40 | 1,69E-05 | 0,67 | 1,58E-13 |
| ENSG00000012174 | <i>MBTPS2</i> | 0,64 | 1,69E-10 | 0,43 | 5,41E-05 | 1,05 | 5,75E-22 | 0,45 | 1,59E-04 |

| | | | | | | | | | |
|-----------------|-----------------|------|-----------|------|----------|------|----------|------|----------|
| ENSG00000204439 | <i>C6ORF47</i> | 0,94 | 6,61E-05 | 0,96 | 6,18E-05 | 0,60 | 1,06E-03 | 1,39 | 1,18E-16 |
| ENSG00000104889 | <i>RNASEH2A</i> | 0,64 | 2,17E-05 | 0,61 | 8,23E-05 | 0,57 | 9,57E-07 | 0,50 | 2,22E-05 |
| ENSG00000115216 | <i>NRBP1</i> | 0,25 | 7,36E-04 | 0,29 | 8,26E-05 | 0,42 | 8,96E-06 | 0,39 | 4,32E-05 |
| ENSG00000198964 | <i>SGMS1</i> | 0,78 | 2,58E-09 | 0,55 | 8,75E-05 | 1,33 | 1,17E-32 | 0,79 | 1,22E-11 |
| ENSG00000004961 | <i>HCCS</i> | 0,43 | 4,45E-03 | 0,57 | 1,09E-04 | 0,66 | 3,31E-06 | 1,11 | 2,29E-16 |
| ENSG00000187134 | <i>AKR1C1</i> | 1,68 | 5,78E-140 | 0,28 | 1,37E-04 | 1,02 | 3,57E-24 | 0,66 | 1,75E-10 |
| ENSG00000119638 | <i>NEK9</i> | 0,66 | 2,75E-11 | 0,40 | 1,48E-04 | 0,48 | 4,72E-08 | 0,50 | 1,51E-08 |
| ENSG00000196922 | <i>ZNF252</i> | 0,83 | 5,00E-11 | 0,50 | 2,26E-04 | 0,70 | 1,21E-08 | 0,37 | 4,83E-03 |
| ENSG00000187546 | <i>TMEM195</i> | 1,14 | 7,29E-04 | 1,24 | 2,42E-04 | 0,58 | 2,23E-07 | 0,60 | 1,10E-07 |
| ENSG00000172070 | <i>SRXN1</i> | 1,20 | 1,46E-16 | 0,59 | 2,74E-04 | 1,75 | 3,04E-21 | 1,08 | 2,73E-08 |
| ENSG00000185813 | <i>PCYT2</i> | 0,44 | 8,40E-09 | 0,30 | 2,86E-04 | 0,24 | 9,68E-03 | 0,45 | 1,56E-07 |
| ENSG00000143653 | <i>SCCPDH</i> | 0,35 | 4,75E-04 | 0,36 | 4,53E-04 | 0,79 | 4,54E-17 | 0,41 | 3,68E-05 |
| ENSG00000159348 | <i>CYB5R1</i> | 0,67 | 9,39E-05 | 0,62 | 4,59E-04 | 0,85 | 1,19E-16 | 0,57 | 9,55E-08 |
| ENSG00000156587 | <i>UBE2L6</i> | 0,91 | 2,70E-11 | 0,51 | 6,08E-04 | 0,70 | 2,53E-06 | 0,43 | 6,71E-03 |
| ENSG00000129562 | <i>DAD1</i> | 0,25 | 3,65E-03 | 0,29 | 6,73E-04 | 0,55 | 4,22E-10 | 0,27 | 3,75E-03 |
| ENSG00000095321 | <i>CRAT</i> | 0,44 | 6,39E-05 | 0,38 | 7,31E-04 | 0,69 | 3,56E-08 | 0,64 | 4,46E-07 |
| ENSG00000182165 | <i>TP53TG1</i> | 0,58 | 2,50E-03 | 0,65 | 7,51E-04 | 0,67 | 4,88E-03 | 0,81 | 5,17E-04 |
| ENSG00000008869 | <i>HEATR5B</i> | 0,53 | 1,49E-06 | 0,39 | 7,99E-04 | 0,37 | 2,10E-03 | 0,39 | 1,30E-03 |
| ENSG00000117450 | <i>PRDX1</i> | 0,55 | 8,01E-22 | 0,21 | 8,01E-04 | 0,29 | 6,74E-05 | 0,30 | 4,57E-05 |
| ENSG00000171307 | <i>ZDHHC16</i> | 0,39 | 8,30E-04 | 0,40 | 8,51E-04 | 0,55 | 1,41E-05 | 0,46 | 4,53E-04 |
| ENSG00000182179 | <i>UBA7</i> | 0,91 | 4,96E-08 | 0,60 | 8,60E-04 | 0,88 | 1,21E-03 | 0,92 | 7,21E-04 |
| ENSG00000119946 | <i>CNNM1</i> | 0,46 | 8,04E-03 | 0,56 | 8,92E-04 | 0,44 | 2,20E-03 | 0,43 | 3,16E-03 |
| ENSG00000130005 | <i>GAMT</i> | 0,83 | 4,14E-21 | 0,33 | 9,22E-04 | 1,01 | 8,48E-22 | 0,84 | 3,66E-15 |
| ENSG00000215039 | <i>CD27-AS1</i> | 0,81 | 3,60E-03 | 0,92 | 9,38E-04 | 0,70 | 8,27E-03 | 0,83 | 1,28E-03 |
| ENSG00000138794 | <i>CASP6</i> | 0,76 | 7,91E-06 | 0,59 | 1,11E-03 | 0,69 | 3,30E-06 | 0,66 | 1,08E-05 |
| ENSG00000124357 | <i>NAGK</i> | 0,75 | 2,67E-08 | 0,47 | 1,23E-03 | 0,94 | 1,67E-18 | 0,45 | 1,10E-04 |
| ENSG00000143036 | <i>SLC44A3</i> | 0,86 | 1,89E-04 | 0,77 | 1,30E-03 | 0,66 | 4,28E-08 | 0,35 | 6,66E-03 |
| ENSG00000137575 | <i>SDCBP</i> | 0,35 | 2,85E-04 | 0,32 | 1,31E-03 | 0,34 | 1,09E-03 | 0,33 | 1,68E-03 |
| ENSG00000154265 | <i>ABCA5</i> | 1,47 | 5,68E-27 | 0,50 | 1,31E-03 | 1,11 | 2,58E-19 | 0,58 | 9,68E-06 |
| ENSG00000145246 | <i>ATP10D</i> | 1,31 | 5,36E-09 | 0,78 | 1,49E-03 | 0,42 | 2,56E-04 | 0,46 | 5,07E-05 |
| ENSG00000135637 | <i>CCDC142</i> | 1,26 | 9,01E-20 | 0,50 | 1,67E-03 | 0,65 | 2,01E-05 | 0,54 | 5,58E-04 |
| ENSG00000185339 | <i>TCN2</i> | 2,12 | 1,04E-11 | 1,05 | 2,25E-03 | 0,60 | 1,53E-03 | 0,88 | 1,32E-06 |

| | | | | | | | | | |
|-----------------|---------------------|------|----------|------|----------|------|----------|------|----------|
| ENSG00000143545 | <i>LOC100131294</i> | 0,44 | 3,44E-03 | 0,46 | 2,30E-03 | 0,38 | 1,12E-03 | 0,52 | 4,08E-06 |
| ENSG00000037042 | <i>TUBG2</i> | 0,54 | 1,98E-04 | 0,46 | 2,41E-03 | 0,82 | 1,66E-07 | 0,48 | 4,12E-03 |
| ENSG00000110013 | <i>SIAE</i> | 0,56 | 1,83E-05 | 0,42 | 2,49E-03 | 0,99 | 2,06E-07 | 0,84 | 1,35E-05 |
| ENSG00000213366 | <i>GSTM2</i> | 1,16 | 9,05E-07 | 0,77 | 2,58E-03 | 1,54 | 1,76E-09 | 0,84 | 2,27E-03 |
| ENSG00000108846 | <i>ABCC3</i> | 1,08 | 9,66E-28 | 0,34 | 2,63E-03 | 0,43 | 5,28E-04 | 0,72 | 1,52E-09 |
| ENSG00000166801 | <i>FAM111A</i> | 1,05 | 1,59E-10 | 0,54 | 3,15E-03 | 0,60 | 8,77E-07 | 0,52 | 2,75E-05 |
| ENSG00000100612 | <i>DHRS7</i> | 0,46 | 7,81E-04 | 0,41 | 3,36E-03 | 1,10 | 1,64E-27 | 0,77 | 1,01E-13 |
| ENSG00000146904 | <i>EPHA1</i> | 1,81 | 6,10E-25 | 0,60 | 3,40E-03 | 1,77 | 1,88E-19 | 1,05 | 3,93E-07 |
| ENSG00000121057 | <i>AKAP1</i> | 0,74 | 1,49E-20 | 0,26 | 3,75E-03 | 1,16 | 4,30E-51 | 0,96 | 9,29E-35 |
| ENSG00000118418 | <i>HMGN3</i> | 0,60 | 2,30E-09 | 0,32 | 3,89E-03 | 0,28 | 1,95E-03 | 0,52 | 1,24E-09 |
| ENSG00000140465 | <i>CYP1A1</i> | 0,76 | 5,65E-04 | 0,66 | 3,95E-03 | 1,39 | 1,49E-47 | 0,90 | 2,60E-20 |
| ENSG00000113369 | <i>ARRDC3</i> | 0,39 | 2,73E-03 | 0,39 | 4,14E-03 | 1,20 | 4,40E-14 | 0,68 | 5,56E-05 |
| ENSG00000136810 | <i>TXN</i> | 0,32 | 8,02E-05 | 0,25 | 4,31E-03 | 0,29 | 1,90E-03 | 0,48 | 6,57E-08 |
| ENSG00000119185 | <i>ITGB1BP1</i> | 0,50 | 2,66E-06 | 0,33 | 5,03E-03 | 0,61 | 7,03E-05 | 0,46 | 3,83E-03 |
| ENSG00000076555 | <i>ACACB</i> | 0,94 | 1,34E-12 | 0,41 | 6,14E-03 | 1,07 | 2,14E-09 | 0,90 | 8,14E-07 |
| ENSG00000179163 | <i>FUCA1</i> | 0,60 | 7,33E-08 | 0,33 | 6,45E-03 | 0,89 | 1,63E-09 | 0,58 | 1,84E-04 |
| ENSG00000214530 | <i>STARD10</i> | 0,78 | 6,28E-25 | 0,24 | 6,51E-03 | 0,95 | 4,81E-16 | 0,85 | 9,29E-13 |
| ENSG00000063322 | <i>MED29</i> | 0,66 | 5,78E-10 | 0,32 | 7,06E-03 | 0,62 | 1,44E-07 | 0,49 | 6,60E-05 |
| ENSG00000114999 | <i>TTL</i> | 0,27 | 2,87E-03 | 0,24 | 8,52E-03 | 0,52 | 1,56E-08 | 0,37 | 1,29E-04 |
| ENSG00000137449 | <i>CPEB2</i> | 1,17 | 8,46E-09 | 0,60 | 8,65E-03 | 2,34 | 6,44E-30 | 0,73 | 1,99E-03 |

S9. Downregulated genes (n=278) after Inc18q22.2 knockdown in HepG2 and Hep3B. FDR<0.01.

| Ensembl Gene ID | Official gene name | HepG2 | | | | Hep3B | | | |
|-----------------|--------------------|----------------|----------|----------------|-----------|----------------|----------|----------------|-----------|
| | | KD1 vs Mock | | KD2 vs Mock | | KD1 vs Mock | | KD2 vs Mock | |
| | | log2FoldChange | FDR | log2FoldChange | FDR | log2FoldChange | FDR | log2FoldChange | FDR |
| ENSG00000132031 | <i>MATN3</i> | -3,73 | 0,00E+00 | -2,77 | 1,01E-252 | -0,68 | 9,04E-07 | -0,38 | 8,92E-03 |
| ENSG00000116016 | <i>EPAS1</i> | -0,90 | 1,70E-51 | -1,31 | 2,10E-106 | -0,90 | 7,37E-30 | -0,83 | 1,13E-25 |
| ENSG00000137801 | <i>THBS1</i> | -1,17 | 1,03E-45 | -1,73 | 2,38E-93 | -1,62 | 3,66E-96 | -1,94 | 1,51E-136 |

Hepatology

| | | | | | | | | | |
|-----------------|-------------------|-------|----------|-------|----------|-------|----------|-------|-----------|
| ENSG00000167658 | <i>EEF2</i> | -0,42 | 3,76E-16 | -0,94 | 2,37E-77 | -0,33 | 3,82E-08 | -0,83 | 1,50E-46 |
| ENSG00000147403 | <i>RPL10</i> | -0,51 | 4,27E-19 | -1,04 | 1,83E-75 | -0,31 | 5,49E-05 | -1,35 | 1,86E-75 |
| ENSG00000118523 | <i>CTGF</i> | -1,95 | 8,34E-49 | -2,17 | 6,74E-60 | -1,46 | 3,05E-94 | -2,13 | 3,43E-194 |
| ENSG00000139514 | <i>SLC7A1</i> | -1,03 | 6,47E-47 | -1,10 | 4,54E-52 | -1,27 | 2,52E-39 | -1,06 | 2,57E-28 |
| ENSG00000144677 | <i>CTDSPL</i> | -1,77 | 1,27E-79 | -1,37 | 1,36E-48 | -1,47 | 3,38E-28 | -1,39 | 3,95E-26 |
| ENSG00000142178 | <i>SIK1</i> | -1,69 | 1,51E-61 | -1,48 | 3,27E-47 | -1,15 | 1,73E-30 | -1,25 | 2,21E-36 |
| ENSG00000103257 | <i>SLC7A5</i> | -0,31 | 2,84E-05 | -1,01 | 1,12E-46 | -1,03 | 7,06E-43 | -2,14 | 2,47E-174 |
| ENSG00000142541 | <i>RPL13A</i> | -0,78 | 1,99E-43 | -0,76 | 1,49E-40 | -0,69 | 5,40E-26 | -0,38 | 1,71E-08 |
| ENSG00000198561 | <i>CTNND1</i> | -0,56 | 1,71E-17 | -0,86 | 3,42E-40 | -0,79 | 6,66E-31 | -0,71 | 2,96E-25 |
| ENSG00000185269 | <i>NOTUM</i> | -2,01 | 6,04E-91 | -1,31 | 1,09E-39 | -1,75 | 3,75E-10 | -0,73 | 9,73E-03 |
| ENSG00000087916 | <i>SLC6A14</i> | -3,15 | 1,12E-65 | -2,26 | 3,19E-39 | -1,64 | 4,69E-10 | -1,39 | 1,25E-07 |
| ENSG00000171552 | <i>BCL2L1</i> | -0,50 | 5,19E-18 | -0,73 | 1,69E-36 | -0,41 | 9,72E-09 | -1,12 | 6,42E-59 |
| ENSG00000142534 | <i>RPS11</i> | -0,76 | 3,65E-41 | -0,71 | 4,87E-36 | -0,57 | 4,61E-15 | -0,38 | 2,85E-07 |
| ENSG00000112414 | <i>GPR126</i> | -1,32 | 1,86E-78 | -0,87 | 4,08E-34 | -1,50 | 7,75E-87 | -0,43 | 4,08E-08 |
| ENSG00000101346 | <i>POFUT1</i> | -0,55 | 1,58E-11 | -0,98 | 1,35E-33 | -0,86 | 1,08E-20 | -1,53 | 6,90E-62 |
| ENSG00000106804 | <i>C5</i> | -1,44 | 4,65E-97 | -0,84 | 5,17E-33 | -0,30 | 1,34E-03 | -0,66 | 4,08E-14 |
| ENSG00000166900 | <i>STX3</i> | -0,72 | 4,42E-10 | -1,40 | 1,55E-32 | -0,73 | 3,16E-18 | -1,41 | 1,12E-63 |
| ENSG00000175061 | <i>NCRNA00188</i> | -0,65 | 1,37E-16 | -0,93 | 5,19E-32 | -0,60 | 5,61E-14 | -0,44 | 8,43E-08 |
| ENSG00000132688 | <i>NES</i> | -1,89 | 2,37E-62 | -1,30 | 1,90E-31 | -1,12 | 4,44E-49 | -0,76 | 1,05E-23 |
| ENSG00000173706 | <i>HEG1</i> | -0,95 | 3,24E-29 | -1,00 | 2,59E-31 | -0,68 | 9,05E-15 | -1,10 | 8,30E-37 |
| ENSG00000152291 | <i>TGOLN2</i> | -0,44 | 9,26E-13 | -0,71 | 1,05E-30 | -1,09 | 3,83E-49 | -0,49 | 8,29E-11 |
| ENSG00000141458 | <i>NPC1</i> | -0,99 | 9,75E-38 | -0,89 | 2,02E-30 | -0,28 | 7,14E-03 | -0,92 | 2,15E-21 |
| ENSG00000124766 | <i>SOX4</i> | -1,03 | 1,28E-14 | -1,56 | 3,46E-30 | -0,70 | 3,82E-23 | -1,22 | 6,24E-68 |
| ENSG00000167470 | <i>MIDN</i> | -0,99 | 1,98E-28 | -1,02 | 1,23E-29 | -1,45 | 8,64E-36 | -1,70 | 1,27E-48 |
| ENSG00000175215 | <i>CTDSP2</i> | -0,28 | 4,77E-04 | -0,85 | 1,35E-29 | -0,42 | 9,57E-07 | -1,27 | 2,25E-52 |
| ENSG00000130741 | <i>EIF2S3</i> | -0,75 | 5,41E-25 | -0,81 | 3,92E-28 | -1,36 | 2,11E-58 | -0,85 | 2,32E-24 |
| ENSG00000082781 | <i>ITGB5</i> | -1,07 | 1,27E-51 | -0,78 | 4,81E-28 | -0,43 | 3,29E-05 | -0,50 | 1,17E-06 |
| ENSG00000147526 | <i>TACC1</i> | -1,34 | 4,34E-39 | -1,10 | 1,14E-26 | -0,85 | 3,66E-21 | -1,35 | 1,42E-50 |
| ENSG00000057019 | <i>DCBLD2</i> | -0,87 | 4,20E-31 | -0,81 | 2,60E-26 | -0,89 | 2,06E-22 | -0,69 | 3,11E-14 |
| ENSG00000169242 | <i>EFNA1</i> | -1,18 | 2,91E-46 | -0,88 | 7,64E-26 | -0,83 | 7,16E-12 | -0,85 | 2,01E-12 |
| ENSG00000063046 | <i>EIF4B</i> | -0,39 | 5,20E-10 | -0,65 | 8,41E-26 | -0,55 | 3,69E-13 | -0,34 | 1,83E-05 |
| ENSG00000176619 | <i>LMNB2</i> | -0,38 | 1,32E-04 | -0,98 | 8,98E-26 | -0,38 | 7,59E-05 | -1,74 | 4,41E-83 |
| ENSG00000115363 | <i>FAM176A</i> | -0,66 | 1,69E-09 | -1,15 | 4,69E-25 | -0,65 | 1,27E-03 | -0,75 | 1,59E-04 |

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|-----------------|-----------------|-------|----------|-------|----------|-------|----------|-------|----------|
| ENSG00000111371 | <i>SLC38A1</i> | -1,10 | 1,11E-63 | -0,69 | 5,46E-25 | -0,63 | 1,09E-16 | -0,58 | 2,65E-14 |
| ENSG00000143515 | <i>ATP8B2</i> | -0,56 | 1,62E-10 | -0,90 | 3,18E-24 | -0,26 | 2,31E-03 | -0,91 | 1,25E-29 |
| ENSG00000188846 | <i>RPL14</i> | -0,57 | 1,48E-21 | -0,60 | 1,73E-23 | -0,82 | 2,35E-26 | -0,56 | 7,69E-13 |
| ENSG00000113739 | <i>STC2</i> | -1,67 | 5,88E-69 | -0,95 | 2,63E-23 | -0,94 | 1,37E-13 | -1,21 | 9,58E-22 |
| ENSG00000003989 | <i>SLC7A2</i> | -1,78 | 1,99E-88 | -0,90 | 2,88E-23 | -1,03 | 6,32E-24 | -1,36 | 5,10E-41 |
| ENSG00000142949 | <i>PTPRF</i> | -0,59 | 2,39E-16 | -0,71 | 3,11E-23 | -0,74 | 7,71E-27 | -0,61 | 1,72E-18 |
| ENSG00000170889 | <i>RPS9</i> | -0,66 | 1,45E-28 | -0,59 | 4,13E-23 | -0,63 | 7,72E-16 | -0,39 | 1,03E-06 |
| ENSG00000070756 | <i>PABPC1</i> | -0,64 | 4,84E-24 | -0,63 | 5,71E-23 | -0,78 | 4,68E-27 | -0,42 | 1,76E-08 |
| ENSG00000171314 | <i>PGAM1</i> | -1,20 | 6,56E-48 | -0,81 | 2,93E-22 | -1,22 | 1,59E-26 | -1,96 | 9,40E-64 |
| ENSG00000148411 | <i>NACC2</i> | -0,32 | 8,63E-03 | -1,09 | 4,48E-22 | -0,35 | 5,36E-04 | -1,54 | 3,84E-54 |
| ENSG00000096696 | <i>DSP</i> | -1,07 | 1,91E-54 | -0,67 | 2,31E-21 | -0,58 | 3,30E-17 | -0,36 | 3,91E-07 |
| ENSG00000112306 | <i>RPS12</i> | -0,85 | 2,44E-42 | -0,60 | 3,86E-21 | -0,84 | 1,71E-28 | -0,31 | 1,64E-04 |
| ENSG00000088930 | <i>XRN2</i> | -0,27 | 1,42E-04 | -0,63 | 1,42E-20 | -0,62 | 1,15E-15 | -0,33 | 3,31E-05 |
| ENSG00000196576 | <i>PLXNB2</i> | -0,31 | 1,41E-04 | -0,72 | 1,90E-20 | -0,79 | 3,03E-29 | -0,56 | 3,78E-15 |
| ENSG00000078269 | <i>SYNJ2</i> | -1,19 | 6,03E-61 | -0,68 | 2,05E-20 | -0,59 | 6,45E-12 | -0,25 | 5,89E-03 |
| ENSG00000128272 | <i>ATF4</i> | -0,44 | 2,25E-13 | -0,56 | 2,43E-20 | -0,46 | 3,24E-13 | -0,64 | 1,76E-25 |
| ENSG00000149273 | <i>RPS3</i> | -0,52 | 4,27E-20 | -0,53 | 3,11E-20 | -0,53 | 1,08E-09 | -0,28 | 3,19E-03 |
| ENSG00000127863 | <i>TNFRSF19</i> | -1,20 | 2,20E-43 | -0,80 | 4,15E-20 | -0,93 | 9,59E-16 | -0,63 | 4,23E-08 |
| ENSG00000133657 | <i>ATP13A3</i> | -0,81 | 3,77E-26 | -0,70 | 1,01E-19 | -0,22 | 8,96E-03 | -0,66 | 1,80E-17 |
| ENSG00000198034 | <i>RPS4X</i> | -0,53 | 5,98E-15 | -0,61 | 1,21E-19 | -0,83 | 3,15E-29 | -0,54 | 4,61E-13 |
| ENSG00000070614 | <i>NDST1</i> | -0,33 | 7,34E-05 | -0,73 | 1,22E-19 | -0,47 | 2,05E-11 | -1,10 | 2,71E-58 |
| ENSG00000136237 | <i>RAPGEF5</i> | -0,84 | 1,11E-18 | -0,87 | 2,19E-19 | -0,48 | 2,09E-06 | -0,98 | 1,67E-23 |
| ENSG00000055163 | <i>CYFIP2</i> | -0,61 | 5,68E-12 | -0,80 | 5,16E-19 | -1,14 | 3,97E-09 | -0,70 | 3,27E-04 |
| ENSG00000120254 | <i>MTHFD1L</i> | -0,96 | 1,86E-26 | -0,80 | 1,21E-18 | -1,05 | 1,06E-22 | -0,69 | 1,47E-10 |
| ENSG00000100364 | <i>C22ORF9</i> | -0,49 | 6,84E-07 | -0,85 | 1,26E-18 | -0,36 | 1,27E-03 | -1,27 | 5,85E-32 |
| ENSG00000101444 | <i>AHCY</i> | -1,02 | 2,56E-50 | -0,62 | 1,48E-18 | -1,04 | 6,15E-41 | -0,45 | 1,63E-08 |
| ENSG00000131236 | <i>CAP1</i> | -0,21 | 3,52E-03 | -0,58 | 1,75E-18 | -0,26 | 1,37E-03 | -0,41 | 1,29E-07 |
| ENSG00000147677 | <i>EIF3H</i> | -0,25 | 2,53E-03 | -0,68 | 1,75E-18 | -0,35 | 5,01E-06 | -0,86 | 7,40E-31 |
| ENSG00000138074 | <i>SLC5A6</i> | -0,82 | 3,89E-24 | -0,71 | 3,41E-18 | -0,84 | 2,08E-14 | -0,60 | 5,30E-08 |
| ENSG00000092758 | <i>COL9A3</i> | -1,39 | 9,09E-30 | -1,07 | 7,97E-18 | -1,07 | 1,66E-07 | -0,68 | 1,08E-03 |
| ENSG00000215021 | <i>PHB2</i> | -0,44 | 3,33E-10 | -0,61 | 9,11E-18 | -0,89 | 3,13E-28 | -0,45 | 3,79E-08 |
| ENSG00000122406 | <i>RPL5</i> | -0,71 | 2,24E-32 | -0,52 | 1,92E-17 | -0,75 | 1,00E-30 | -0,21 | 2,80E-03 |

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|-----------------|------------------|-------|-----------|-------|----------|-------|----------|-------|----------|
| ENSG00000147324 | <i>MFHAS1</i> | -0,40 | 2,48E-04 | -0,89 | 2,00E-17 | -1,07 | 4,03E-20 | -1,61 | 1,39E-42 |
| ENSG00000141568 | <i>FOXK2</i> | -0,38 | 3,70E-06 | -0,67 | 4,39E-17 | -0,74 | 4,12E-14 | -0,91 | 1,27E-20 |
| ENSG00000142676 | <i>RPL11</i> | -0,53 | 3,69E-17 | -0,53 | 4,43E-17 | -0,44 | 4,80E-09 | -0,23 | 3,12E-03 |
| ENSG00000133275 | <i>CSNK1G2</i> | -0,63 | 1,24E-08 | -0,92 | 8,73E-17 | -0,56 | 1,09E-06 | -0,84 | 9,94E-14 |
| ENSG00000197081 | <i>IGF2R</i> | -0,65 | 2,27E-28 | -0,50 | 1,32E-16 | -0,99 | 1,84E-48 | -0,64 | 3,40E-21 |
| ENSG00000100316 | <i>LOC653881</i> | -0,61 | 4,52E-24 | -0,51 | 1,80E-16 | -0,80 | 1,12E-30 | -0,23 | 2,46E-03 |
| ENSG00000164171 | <i>ITGA2</i> | -1,94 | 2,57E-111 | -0,71 | 1,89E-16 | -0,43 | 3,14E-03 | -0,61 | 1,71E-05 |
| ENSG00000165238 | <i>WNK2</i> | -0,75 | 8,59E-12 | -0,91 | 1,89E-16 | -0,82 | 2,48E-10 | -0,81 | 3,46E-10 |
| ENSG00000125398 | <i>SOX9</i> | -0,72 | 1,28E-16 | -0,72 | 2,13E-16 | -1,71 | 4,92E-91 | -0,63 | 1,58E-14 |
| ENSG00000182272 | <i>B4GALNT4</i> | -2,08 | 3,53E-46 | -1,13 | 1,09E-15 | -1,64 | 3,90E-14 | -0,93 | 1,88E-05 |
| ENSG00000167635 | <i>ZNF146</i> | -0,73 | 1,37E-15 | -0,74 | 1,26E-15 | -1,92 | 4,43E-90 | -0,43 | 8,15E-06 |
| ENSG00000171490 | <i>RSL1D1</i> | -0,22 | 6,51E-04 | -0,50 | 1,74E-15 | -0,72 | 3,24E-21 | -0,55 | 1,12E-12 |
| ENSG00000110700 | <i>RPS13</i> | -0,60 | 1,06E-22 | -0,50 | 1,98E-15 | -0,61 | 8,12E-16 | -0,22 | 6,87E-03 |
| ENSG00000144713 | <i>RPL32</i> | -0,73 | 3,05E-28 | -0,53 | 3,28E-15 | -0,50 | 7,34E-12 | -0,34 | 8,15E-06 |
| ENSG00000077782 | <i>FGFR1</i> | -0,68 | 3,97E-10 | -0,83 | 1,63E-14 | -0,78 | 5,88E-07 | -0,75 | 1,77E-06 |
| ENSG00000158985 | <i>CDC42SE2</i> | -0,48 | 1,69E-06 | -0,77 | 1,68E-14 | -0,53 | 2,37E-05 | -1,07 | 2,18E-18 |
| ENSG00000070669 | <i>ASNS</i> | -1,73 | 1,15E-67 | -0,77 | 2,42E-14 | -1,00 | 2,41E-23 | -0,65 | 9,83E-11 |
| ENSG00000133195 | <i>SLC39A11</i> | -0,76 | 9,20E-07 | -1,18 | 2,65E-14 | -0,77 | 3,52E-07 | -1,12 | 4,45E-14 |
| ENSG00000187109 | <i>NAP1L1</i> | -1,17 | 6,70E-65 | -0,53 | 4,83E-14 | -1,37 | 1,61E-66 | -0,26 | 2,59E-03 |
| ENSG00000140443 | <i>IGF1R</i> | -0,63 | 2,50E-18 | -0,55 | 5,15E-14 | -0,74 | 1,12E-13 | -0,73 | 1,38E-13 |
| ENSG00000166441 | <i>RPL27A</i> | -0,74 | 9,45E-24 | -0,57 | 5,52E-14 | -0,72 | 3,74E-20 | -0,24 | 5,89E-03 |
| ENSG00000162889 | <i>MAPKAPK2</i> | -0,59 | 7,39E-09 | -0,77 | 1,03E-13 | -1,19 | 2,63E-33 | -1,42 | 1,30E-46 |
| ENSG00000166986 | <i>MARS</i> | -0,87 | 1,11E-33 | -0,55 | 1,33E-13 | -0,88 | 1,84E-26 | -0,29 | 9,67E-04 |
| ENSG00000079432 | <i>CIC</i> | -0,81 | 8,45E-16 | -0,76 | 1,56E-13 | -0,81 | 1,16E-15 | -0,67 | 2,34E-11 |
| ENSG00000133112 | <i>LOC285741</i> | -0,69 | 1,73E-25 | -0,50 | 1,63E-13 | -0,51 | 1,46E-13 | -0,24 | 9,67E-04 |
| ENSG00000144711 | <i>IQSEC1</i> | -0,29 | 9,10E-04 | -0,61 | 2,26E-13 | -0,42 | 5,61E-05 | -0,51 | 1,19E-06 |
| ENSG00000108298 | <i>RPL19</i> | -0,47 | 1,76E-14 | -0,46 | 2,29E-13 | -0,42 | 1,73E-11 | -0,18 | 7,99E-03 |
| ENSG00000140988 | <i>RPS2</i> | -0,47 | 5,62E-13 | -0,47 | 3,58E-13 | -0,67 | 1,94E-24 | -0,31 | 7,83E-06 |
| ENSG00000035928 | <i>RFC1</i> | -0,38 | 3,83E-07 | -0,53 | 3,93E-13 | -0,60 | 8,25E-15 | -0,93 | 5,81E-34 |
| ENSG00000142937 | <i>RPS8</i> | -0,63 | 1,68E-17 | -0,55 | 4,66E-13 | -0,57 | 1,79E-14 | -0,22 | 6,90E-03 |
| ENSG00000116584 | <i>ARHGEF2</i> | -0,83 | 1,12E-08 | -1,05 | 1,12E-12 | -1,39 | 6,24E-44 | -1,68 | 3,26E-63 |
| ENSG00000157827 | <i>FMNL2</i> | -1,36 | 5,00E-77 | -0,53 | 1,74E-12 | -0,63 | 2,40E-12 | -0,51 | 1,94E-08 |

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|-----------------|---------------------|-------|-----------|-------|----------|-------|----------|-------|----------|
| ENSG00000138095 | <i>LRPPRC</i> | -0,64 | 4,53E-26 | -0,44 | 2,24E-12 | -0,59 | 2,37E-15 | -0,43 | 2,53E-08 |
| ENSG00000103429 | <i>BFAR</i> | -0,26 | 9,83E-04 | -0,52 | 2,58E-12 | -0,29 | 4,16E-03 | -0,30 | 3,56E-03 |
| ENSG00000205730 | <i>ITPRIPL2</i> | -0,78 | 4,07E-13 | -0,76 | 3,79E-12 | -1,29 | 7,08E-13 | -1,77 | 3,13E-22 |
| ENSG00000146729 | <i>GBAS</i> | -0,53 | 1,84E-05 | -0,84 | 4,59E-12 | -0,75 | 5,64E-10 | -1,13 | 5,22E-21 |
| ENSG00000169908 | <i>TM4SF1</i> | -1,73 | 3,75E-101 | -0,58 | 7,12E-12 | -1,49 | 1,80E-05 | -1,01 | 4,74E-03 |
| ENSG00000087266 | <i>SH3BP2</i> | -0,77 | 1,57E-09 | -0,88 | 1,09E-11 | -0,57 | 1,19E-04 | -1,34 | 4,59E-20 |
| ENSG00000137818 | <i>RPLP1</i> | -0,64 | 5,76E-17 | -0,53 | 1,50E-11 | -0,89 | 7,63E-26 | -0,61 | 1,50E-12 |
| ENSG00000103187 | <i>COTL1</i> | -1,89 | 1,18E-48 | -0,84 | 1,81E-11 | -1,04 | 1,54E-13 | -0,51 | 3,85E-04 |
| ENSG00000137309 | <i>HMG1A1</i> | -1,06 | 3,54E-38 | -0,57 | 2,50E-11 | -1,40 | 9,82E-67 | -0,49 | 3,29E-09 |
| ENSG00000168758 | <i>SEMA4C</i> | -1,24 | 3,10E-31 | -0,72 | 2,76E-11 | -0,54 | 1,70E-06 | -0,31 | 9,26E-03 |
| ENSG00000128829 | <i>EIF2AK4</i> | -0,81 | 1,17E-27 | -0,51 | 2,84E-11 | -1,08 | 9,31E-21 | -0,69 | 2,07E-09 |
| ENSG00000198858 | <i>C19ORF22</i> | -0,53 | 5,36E-07 | -0,70 | 3,50E-11 | -0,48 | 4,25E-06 | -0,58 | 2,42E-08 |
| ENSG00000137166 | <i>FOXP4</i> | -0,41 | 3,68E-05 | -0,64 | 3,71E-11 | -0,94 | 1,54E-22 | -0,67 | 2,14E-12 |
| ENSG00000168488 | <i>ATXN2L</i> | -0,34 | 5,66E-06 | -0,48 | 6,36E-11 | -0,27 | 1,13E-03 | -0,59 | 4,62E-14 |
| ENSG00000146433 | <i>TMEM181</i> | -0,91 | 1,10E-34 | -0,50 | 7,15E-11 | -0,28 | 2,18E-03 | -0,80 | 1,63E-21 |
| ENSG00000128342 | <i>LIF</i> | -0,71 | 2,08E-04 | -1,24 | 7,23E-11 | -2,25 | 5,80E-30 | -1,40 | 8,51E-14 |
| ENSG00000260032 | <i>LINC00657</i> | -0,33 | 1,10E-06 | -0,43 | 8,35E-11 | -0,31 | 1,49E-04 | -0,50 | 2,28E-10 |
| ENSG00000101384 | <i>JAG1</i> | -0,55 | 1,68E-13 | -0,49 | 9,12E-11 | -1,41 | 1,52E-95 | -0,53 | 2,00E-14 |
| ENSG00000116962 | <i>NID1</i> | -0,83 | 1,63E-36 | -0,44 | 1,01E-10 | -0,77 | 6,17E-24 | -0,48 | 7,43E-10 |
| ENSG00000145425 | <i>LOC100130107</i> | -0,71 | 1,94E-18 | -0,53 | 1,08E-10 | -0,74 | 5,80E-28 | -0,30 | 3,01E-05 |
| ENSG00000182606 | <i>TRAK1</i> | -0,75 | 3,34E-20 | -0,54 | 1,77E-10 | -0,37 | 4,97E-03 | -0,47 | 2,32E-04 |
| ENSG00000189221 | <i>MAOA</i> | -0,38 | 2,05E-04 | -0,64 | 1,89E-10 | -0,47 | 2,46E-03 | -0,53 | 4,92E-04 |
| ENSG00000185624 | <i>P4HB</i> | -0,52 | 2,77E-17 | -0,40 | 2,01E-10 | -0,79 | 5,28E-29 | -0,93 | 2,07E-39 |
| ENSG00000141905 | <i>NFIC</i> | -0,87 | 9,54E-10 | -0,92 | 2,47E-10 | -0,51 | 1,26E-04 | -0,49 | 2,84E-04 |
| ENSG00000142089 | <i>IFITM3</i> | -1,02 | 1,07E-18 | -0,74 | 2,54E-10 | -0,43 | 1,88E-06 | -0,54 | 1,21E-09 |
| ENSG00000132970 | <i>WASF3</i> | -0,87 | 8,19E-12 | -0,81 | 3,00E-10 | -0,85 | 1,61E-05 | -0,95 | 1,24E-06 |
| ENSG00000184640 | <i>SEPT9</i> | -0,20 | 4,52E-03 | -0,42 | 3,00E-10 | -0,46 | 3,98E-12 | -0,35 | 2,77E-07 |
| ENSG00000007047 | <i>MARK4</i> | -0,76 | 5,81E-08 | -0,88 | 4,47E-10 | -1,31 | 2,36E-21 | -0,82 | 2,00E-09 |
| ENSG00000175727 | <i>MLXIP</i> | -0,28 | 9,27E-03 | -0,64 | 6,01E-10 | -0,41 | 2,91E-04 | -1,29 | 1,72E-31 |
| ENSG00000182319 | <i>SGK223</i> | -1,04 | 1,79E-21 | -0,69 | 6,75E-10 | -0,68 | 7,17E-07 | -0,46 | 1,10E-03 |
| ENSG00000116017 | <i>ARID3A</i> | -0,31 | 2,48E-04 | -0,51 | 7,01E-10 | -0,86 | 8,41E-27 | -0,65 | 8,90E-16 |
| ENSG00000142192 | <i>APP</i> | -1,03 | 2,56E-46 | -0,46 | 7,17E-10 | -0,43 | 7,85E-13 | -0,30 | 1,33E-06 |

Hepatology

| | | | | | | | | | |
|-----------------|-----------------|-------|----------|-------|----------|-------|----------|-------|----------|
| ENSG00000168615 | <i>ADAM9</i> | -0,95 | 3,53E-42 | -0,44 | 9,03E-10 | -0,52 | 2,60E-11 | -0,22 | 9,44E-03 |
| ENSG00000047457 | <i>CP</i> | -2,40 | 1,92E-44 | -1,10 | 1,09E-09 | -1,77 | 7,74E-45 | -0,54 | 2,16E-05 |
| ENSG00000175826 | <i>DULLARD</i> | -0,78 | 1,06E-08 | -0,85 | 1,09E-09 | -1,69 | 1,31E-29 | -1,90 | 5,08E-37 |
| ENSG00000167491 | <i>GATAD2A</i> | -0,48 | 3,13E-06 | -0,62 | 1,17E-09 | -1,10 | 7,10E-27 | -0,88 | 3,84E-18 |
| ENSG00000084652 | <i>TXLNA</i> | -0,41 | 5,35E-07 | -0,49 | 1,38E-09 | -1,03 | 3,29E-27 | -0,47 | 1,27E-06 |
| ENSG00000100065 | <i>CARD10</i> | -0,76 | 5,01E-19 | -0,53 | 1,59E-09 | -0,34 | 1,20E-03 | -0,28 | 7,71E-03 |
| ENSG00000100422 | <i>CERK</i> | -0,46 | 1,91E-06 | -0,58 | 1,98E-09 | -1,31 | 4,40E-35 | -0,99 | 5,68E-21 |
| ENSG00000159128 | <i>IFNGR2</i> | -0,78 | 1,19E-10 | -0,73 | 3,14E-09 | -0,65 | 1,21E-06 | -0,74 | 2,42E-08 |
| ENSG00000065060 | <i>UHRF1BP1</i> | -0,31 | 9,76E-05 | -0,46 | 3,37E-09 | -0,42 | 4,28E-05 | -1,57 | 2,77E-57 |
| ENSG00000134686 | <i>PHC2</i> | -0,78 | 1,62E-21 | -0,50 | 3,52E-09 | -0,92 | 7,71E-21 | -0,57 | 7,47E-09 |
| ENSG00000163435 | <i>ELF3</i> | -1,34 | 1,05E-10 | -1,23 | 5,14E-09 | -0,48 | 4,25E-05 | -0,65 | 1,70E-08 |
| ENSG00000124226 | <i>RNF114</i> | -0,25 | 4,15E-03 | -0,47 | 6,67E-09 | -0,90 | 1,72E-22 | -0,99 | 4,12E-27 |
| ENSG00000008282 | <i>SYPL1</i> | -0,49 | 3,47E-07 | -0,57 | 7,20E-09 | -0,95 | 3,23E-23 | -0,74 | 6,02E-15 |
| ENSG00000163584 | <i>RPL22L1</i> | -1,09 | 6,32E-14 | -0,85 | 9,01E-09 | -1,26 | 6,58E-20 | -0,54 | 1,08E-04 |
| ENSG00000113387 | <i>SUB1</i> | -0,26 | 2,07E-03 | -0,46 | 1,22E-08 | -0,33 | 3,23E-06 | -0,65 | 1,55E-21 |
| ENSG00000088826 | <i>SMOX</i> | -0,42 | 1,62E-03 | -0,75 | 1,24E-08 | -0,98 | 1,28E-11 | -0,62 | 2,49E-05 |
| ENSG00000103005 | <i>C16ORF57</i> | -0,27 | 6,12E-03 | -0,53 | 1,24E-08 | -0,73 | 1,23E-12 | -0,50 | 1,58E-06 |
| ENSG00000129473 | <i>BCL2L2</i> | -0,52 | 4,91E-09 | -0,51 | 1,53E-08 | -0,65 | 7,61E-08 | -0,92 | 1,06E-14 |
| ENSG00000130723 | <i>BAT2L1</i> | -0,25 | 9,31E-04 | -0,41 | 2,22E-08 | -0,35 | 1,53E-06 | -0,24 | 2,25E-03 |
| ENSG00000188559 | <i>RALGAPA2</i> | -1,02 | 1,21E-32 | -0,50 | 2,22E-08 | -1,41 | 4,80E-40 | -0,31 | 6,05E-03 |
| ENSG00000143384 | <i>MCL1</i> | -1,25 | 3,09E-67 | -0,42 | 2,23E-08 | -1,50 | 1,35E-98 | -0,89 | 3,62E-36 |
| ENSG00000101040 | <i>ZMYND8</i> | -0,65 | 1,76E-20 | -0,41 | 2,42E-08 | -0,76 | 3,72E-19 | -0,32 | 3,49E-04 |
| ENSG00000181789 | <i>COPG</i> | -0,21 | 8,90E-03 | -0,42 | 2,78E-08 | -0,47 | 4,50E-09 | -1,43 | 3,74E-73 |
| ENSG00000136295 | <i>TTYH3</i> | -0,85 | 1,94E-31 | -0,42 | 2,82E-08 | -0,27 | 3,71E-03 | -0,29 | 1,76E-03 |
| ENSG00000100889 | <i>PCK2</i> | -0,58 | 3,11E-16 | -0,40 | 3,09E-08 | -0,80 | 2,34E-10 | -1,43 | 5,65E-30 |
| ENSG00000008988 | <i>RPS20</i> | -0,51 | 1,70E-15 | -0,37 | 3,25E-08 | -0,55 | 1,36E-12 | -0,28 | 6,01E-04 |
| ENSG00000145907 | <i>G3BP1</i> | -0,30 | 1,91E-05 | -0,39 | 3,66E-08 | -0,59 | 1,30E-16 | -0,38 | 2,59E-07 |
| ENSG00000135486 | <i>HNRNPA1</i> | -0,24 | 1,03E-03 | -0,37 | 6,67E-08 | -0,64 | 5,10E-26 | -0,27 | 1,98E-05 |
| ENSG00000116539 | <i>ASH1L</i> | -0,55 | 3,99E-07 | -0,59 | 9,45E-08 | -0,71 | 4,30E-17 | -0,26 | 3,72E-03 |
| ENSG00000090621 | <i>PABPC4</i> | -0,62 | 4,31E-13 | -0,47 | 9,83E-08 | -0,91 | 8,53E-23 | -0,35 | 3,72E-04 |
| ENSG00000142453 | <i>CARM1</i> | -0,95 | 6,35E-20 | -0,57 | 1,00E-07 | -1,11 | 3,68E-22 | -1,19 | 1,58E-25 |
| ENSG00000077232 | <i>DNAJC10</i> | -0,34 | 1,07E-06 | -0,37 | 1,21E-07 | -0,32 | 4,23E-04 | -1,13 | 4,65E-41 |

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|-----------------|------------------|-------|-----------|-------|----------|-------|----------|-------|----------|
| ENSG00000101255 | <i>TRIB3</i> | -0,38 | 2,96E-07 | -0,40 | 1,35E-07 | -0,27 | 8,91E-03 | -1,97 | 6,28E-91 |
| ENSG00000169813 | <i>HNRNPF</i> | -0,21 | 2,99E-03 | -0,36 | 1,75E-07 | -0,65 | 4,35E-21 | -0,39 | 4,96E-08 |
| ENSG00000171206 | <i>TRIM8</i> | -0,50 | 1,34E-04 | -0,68 | 1,80E-07 | -0,51 | 2,12E-04 | -0,62 | 4,26E-06 |
| ENSG00000118579 | <i>MED28</i> | -0,44 | 1,83E-06 | -0,48 | 1,83E-07 | -0,62 | 3,20E-09 | -1,02 | 3,70E-23 |
| ENSG00000135966 | <i>TGFBRAP1</i> | -0,57 | 2,11E-09 | -0,51 | 1,94E-07 | -0,92 | 2,24E-12 | -0,85 | 6,40E-11 |
| ENSG0000010818 | <i>HIVEP2</i> | -1,47 | 1,11E-24 | -0,73 | 4,94E-07 | -1,26 | 3,10E-19 | -1,28 | 4,14E-20 |
| ENSG00000166197 | <i>NOLC1</i> | -0,72 | 2,58E-20 | -0,41 | 5,86E-07 | -1,85 | 2,91E-99 | -0,40 | 7,55E-06 |
| ENSG0000011009 | <i>LYPLA2</i> | -0,40 | 2,03E-04 | -0,53 | 5,91E-07 | -1,44 | 1,06E-36 | -1,89 | 1,16E-60 |
| ENSG00000147459 | <i>DOCK5</i> | -0,40 | 1,50E-04 | -0,52 | 6,52E-07 | -0,60 | 1,20E-07 | -0,71 | 2,46E-10 |
| ENSG00000132640 | <i>BTBD3</i> | -1,01 | 1,03E-22 | -0,53 | 6,53E-07 | -1,18 | 9,53E-26 | -0,34 | 4,41E-03 |
| ENSG00000142207 | <i>URB1</i> | -0,40 | 2,98E-05 | -0,48 | 7,87E-07 | -0,93 | 1,92E-19 | -0,50 | 1,99E-06 |
| ENSG00000198369 | <i>SPRED2</i> | -0,49 | 4,42E-10 | -0,39 | 8,77E-07 | -0,54 | 8,94E-09 | -0,38 | 8,46E-05 |
| ENSG00000099942 | <i>CRKL</i> | -0,45 | 1,20E-07 | -0,42 | 9,36E-07 | -0,78 | 6,59E-22 | -1,05 | 1,30E-38 |
| ENSG00000234741 | <i>GAS5</i> | -0,56 | 1,69E-07 | -0,53 | 1,01E-06 | -0,95 | 1,04E-33 | -0,38 | 2,41E-06 |
| ENSG00000197724 | <i>PHF2</i> | -0,51 | 5,12E-05 | -0,62 | 1,12E-06 | -0,65 | 5,00E-09 | -0,81 | 1,58E-13 |
| ENSG00000129250 | <i>KIF1C</i> | -0,34 | 4,95E-05 | -0,41 | 1,19E-06 | -1,31 | 6,37E-86 | -0,25 | 4,01E-04 |
| ENSG00000119383 | <i>PPP2R4</i> | -0,35 | 2,88E-05 | -0,41 | 1,20E-06 | -0,94 | 8,94E-26 | -1,12 | 5,21E-36 |
| ENSG00000137331 | <i>IER3</i> | -2,46 | 9,01E-119 | -0,51 | 1,25E-06 | -1,54 | 3,84E-48 | -0,55 | 4,21E-07 |
| ENSG00000128849 | <i>CGNL1</i> | -0,53 | 2,18E-07 | -0,50 | 1,43E-06 | -1,45 | 1,25E-23 | -0,45 | 2,35E-03 |
| ENSG00000107957 | <i>SH3PXD2A</i> | -0,52 | 8,79E-10 | -0,42 | 1,68E-06 | -1,95 | 1,43E-61 | -0,54 | 3,65E-06 |
| ENSG00000149187 | <i>CELF1</i> | -0,48 | 4,84E-10 | -0,37 | 2,18E-06 | -0,89 | 9,89E-37 | -0,31 | 2,71E-05 |
| ENSG00000102763 | <i>KIAA0564</i> | -0,65 | 2,84E-09 | -0,53 | 2,18E-06 | -0,55 | 1,29E-05 | -0,57 | 6,46E-06 |
| ENSG00000138166 | <i>DUSP5</i> | -2,01 | 2,05E-14 | -1,25 | 2,76E-06 | -2,04 | 2,50E-34 | -0,54 | 1,05E-03 |
| ENSG00000153879 | <i>CEBPG</i> | -0,53 | 1,11E-09 | -0,42 | 3,54E-06 | -0,67 | 4,75E-14 | -0,42 | 4,43E-06 |
| ENSG00000120942 | <i>UBIAD1</i> | -0,33 | 4,50E-03 | -0,52 | 3,80E-06 | -0,43 | 1,36E-03 | -0,87 | 1,49E-11 |
| ENSG00000119559 | <i>C19ORF25</i> | -0,60 | 1,21E-06 | -0,58 | 3,81E-06 | -0,85 | 2,08E-10 | -0,56 | 3,58E-05 |
| ENSG00000197136 | <i>PCNXL3</i> | -0,27 | 8,78E-03 | -0,45 | 4,26E-06 | -0,74 | 3,69E-22 | -0,39 | 5,64E-07 |
| ENSG00000134970 | <i>TICAM2</i> | -0,56 | 2,63E-11 | -0,40 | 5,16E-06 | -0,72 | 2,91E-14 | -0,87 | 3,24E-20 |
| ENSG00000132382 | <i>MYBBP1A</i> | -0,38 | 2,66E-04 | -0,47 | 5,41E-06 | -1,28 | 4,15E-52 | -0,41 | 1,44E-06 |
| ENSG00000150093 | <i>ITGB1</i> | -0,74 | 3,98E-30 | -0,32 | 5,49E-06 | -0,56 | 2,24E-14 | -0,25 | 1,35E-03 |
| ENSG00000206053 | <i>HN1L</i> | -0,28 | 1,48E-03 | -0,39 | 6,16E-06 | -1,09 | 1,29E-48 | -1,14 | 1,42E-53 |
| ENSG00000259974 | <i>LINC00261</i> | -0,67 | 5,21E-20 | -0,35 | 7,02E-06 | -0,45 | 2,55E-08 | -0,63 | 2,32E-15 |

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|-----------------|-----------------|-------|----------|-------|----------|-------|----------|-------|----------|
| ENSG00000135069 | <i>C8ORF62</i> | -0,32 | 7,34E-05 | -0,36 | 9,27E-06 | -1,04 | 5,83E-28 | -0,58 | 2,31E-09 |
| ENSG00000177954 | <i>RPS27</i> | -0,57 | 1,88E-11 | -0,39 | 1,08E-05 | -0,54 | 4,57E-13 | -0,23 | 4,05E-03 |
| ENSG00000104885 | <i>DOT1L</i> | -0,73 | 1,86E-16 | -0,41 | 1,09E-05 | -0,55 | 1,08E-06 | -0,70 | 4,01E-10 |
| ENSG00000165802 | <i>NELF</i> | -0,96 | 1,21E-34 | -0,37 | 1,11E-05 | -0,93 | 1,24E-19 | -0,31 | 3,82E-03 |
| ENSG00000025772 | <i>TOMM34</i> | -0,65 | 1,80E-10 | -0,47 | 1,28E-05 | -1,66 | 2,20E-38 | -1,41 | 1,07E-29 |
| ENSG00000139722 | <i>VPS37B</i> | -0,65 | 1,04E-03 | -0,87 | 1,35E-05 | -0,74 | 6,14E-06 | -1,03 | 2,10E-10 |
| ENSG00000112242 | <i>E2F3</i> | -0,64 | 1,53E-06 | -0,59 | 1,86E-05 | -0,74 | 1,16E-18 | -0,63 | 4,43E-14 |
| ENSG00000197498 | <i>RPF2</i> | -0,50 | 7,63E-04 | -0,63 | 2,12E-05 | -0,36 | 4,65E-03 | -0,55 | 9,30E-06 |
| ENSG00000087074 | <i>PPP1R15A</i> | -0,90 | 2,08E-08 | -0,70 | 2,80E-05 | -1,19 | 3,03E-26 | -0,51 | 6,14E-06 |
| ENSG00000148468 | <i>FAM171A1</i> | -0,98 | 3,27E-26 | -0,41 | 3,50E-05 | -0,56 | 1,03E-05 | -0,56 | 1,24E-05 |
| ENSG00000010404 | <i>IDS</i> | -1,00 | 5,06E-11 | -0,65 | 3,61E-05 | -0,55 | 1,06E-03 | -0,95 | 5,84E-09 |
| ENSG00000170027 | <i>YWHAG</i> | -0,44 | 2,69E-10 | -0,30 | 4,00E-05 | -0,33 | 7,60E-06 | -0,69 | 7,86E-23 |
| ENSG00000119231 | <i>SENP5</i> | -0,45 | 1,52E-05 | -0,44 | 4,06E-05 | -0,30 | 4,93E-03 | -0,35 | 1,06E-03 |
| ENSG00000175224 | <i>KIAA0652</i> | -0,49 | 2,13E-09 | -0,35 | 4,53E-05 | -1,03 | 4,57E-25 | -0,84 | 4,32E-17 |
| ENSG00000125944 | <i>HNRNPR</i> | -0,27 | 1,83E-04 | -0,29 | 5,12E-05 | -0,74 | 8,33E-21 | -0,31 | 1,69E-04 |
| ENSG00000132510 | <i>KDM6B</i> | -0,68 | 8,63E-07 | -0,56 | 8,25E-05 | -0,28 | 8,73E-03 | -0,30 | 5,98E-03 |
| ENSG00000189343 | <i>RPS2P46</i> | -0,41 | 1,45E-05 | -0,38 | 8,95E-05 | -0,77 | 9,99E-14 | -0,43 | 6,86E-05 |
| ENSG00000165030 | <i>NFIL3</i> | -0,89 | 5,68E-18 | -0,42 | 1,21E-04 | -0,78 | 4,60E-11 | -0,49 | 4,74E-05 |
| ENSG00000085415 | <i>SEH1L</i> | -0,49 | 4,25E-07 | -0,38 | 1,40E-04 | -0,82 | 8,48E-15 | -0,57 | 9,81E-08 |
| ENSG00000166887 | <i>VPS39</i> | -0,33 | 4,20E-03 | -0,43 | 1,59E-04 | -0,93 | 3,45E-17 | -0,63 | 8,86E-09 |
| ENSG00000128595 | <i>CALU</i> | -0,56 | 3,76E-17 | -0,27 | 1,78E-04 | -0,42 | 1,00E-09 | -0,51 | 6,49E-14 |
| ENSG00000136888 | <i>ATP6V1G1</i> | -1,03 | 4,02E-24 | -0,41 | 1,96E-04 | -1,93 | 1,67E-85 | -0,50 | 2,79E-07 |
| ENSG00000198952 | <i>SMG5</i> | -0,66 | 5,95E-15 | -0,34 | 2,01E-04 | -1,34 | 2,46E-56 | -0,41 | 2,88E-06 |
| ENSG00000101109 | <i>STK4</i> | -0,22 | 6,78E-03 | -0,29 | 2,44E-04 | -0,58 | 8,27E-09 | -0,36 | 5,65E-04 |
| ENSG00000157985 | <i>AGAP1</i> | -0,52 | 9,45E-08 | -0,38 | 2,51E-04 | -1,04 | 2,10E-13 | -0,83 | 2,99E-09 |
| ENSG00000185201 | <i>IFITM2</i> | -1,91 | 2,52E-17 | -0,84 | 2,65E-04 | -0,80 | 1,36E-03 | -1,14 | 3,64E-06 |
| ENSG00000173020 | <i>ADRBK1</i> | -0,40 | 5,43E-06 | -0,33 | 2,67E-04 | -0,36 | 1,80E-04 | -0,64 | 4,48E-12 |
| ENSG00000166526 | <i>ZNF3</i> | -0,48 | 1,42E-05 | -0,42 | 2,70E-04 | -1,17 | 7,67E-23 | -0,44 | 3,09E-04 |
| ENSG00000173065 | <i>C17ORF63</i> | -0,75 | 3,99E-08 | -0,52 | 2,81E-04 | -1,25 | 7,71E-31 | -1,05 | 1,22E-22 |
| ENSG00000179195 | <i>ZNF664</i> | -0,32 | 1,41E-04 | -0,32 | 2,81E-04 | -0,71 | 7,51E-17 | -0,65 | 1,29E-14 |
| ENSG00000131873 | <i>CHSY1</i> | -1,21 | 4,65E-26 | -0,44 | 2,84E-04 | -1,48 | 3,32E-07 | -0,87 | 3,10E-03 |
| ENSG00000102317 | <i>RBM3</i> | -0,62 | 2,83E-10 | -0,38 | 3,12E-04 | -0,75 | 1,31E-14 | -0,31 | 2,54E-03 |

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|-----------------|------------------|-------|----------|-------|----------|-------|----------|-------|----------|
| ENSG00000103342 | <i>GSPT1</i> | -0,27 | 1,77E-04 | -0,26 | 3,39E-04 | -0,74 | 1,58E-23 | -0,28 | 3,88E-04 |
| ENSG00000011275 | <i>RNF216</i> | -0,39 | 5,92E-05 | -0,35 | 3,61E-04 | -0,59 | 1,80E-11 | -0,26 | 5,05E-03 |
| ENSG00000130702 | <i>LAMA5</i> | -0,88 | 1,92E-21 | -0,35 | 4,24E-04 | -0,42 | 8,81E-07 | -0,59 | 1,58E-12 |
| ENSG00000177410 | <i>C20ORF199</i> | -0,53 | 1,40E-05 | -0,44 | 4,91E-04 | -0,95 | 3,94E-18 | -0,57 | 3,33E-07 |
| ENSG00000160691 | <i>SHC1</i> | -0,40 | 1,58E-06 | -0,30 | 5,54E-04 | -1,00 | 2,97E-42 | -0,30 | 9,43E-05 |
| ENSG00000134086 | <i>VHL</i> | -0,25 | 6,92E-03 | -0,31 | 5,78E-04 | -0,56 | 6,76E-10 | -0,79 | 1,66E-18 |
| ENSG00000218226 | <i>TATDN2P2</i> | -1,34 | 3,38E-12 | -0,68 | 6,99E-04 | -0,87 | 2,18E-04 | -1,00 | 2,03E-05 |
| ENSG00000164543 | <i>STK17A</i> | -0,36 | 4,56E-03 | -0,43 | 7,03E-04 | -0,99 | 9,71E-39 | -0,74 | 1,55E-22 |
| ENSG00000143126 | <i>CELSR2</i> | -0,73 | 5,00E-10 | -0,42 | 7,19E-04 | -0,50 | 2,03E-03 | -0,72 | 6,02E-06 |
| ENSG00000167460 | <i>TPM4</i> | -1,05 | 1,99E-54 | -0,25 | 8,37E-04 | -1,33 | 6,84E-90 | -0,35 | 4,97E-07 |
| ENSG00000132182 | <i>NUP210</i> | -0,44 | 9,19E-08 | -0,29 | 8,65E-04 | -0,75 | 7,44E-21 | -0,62 | 1,86E-14 |
| ENSG00000105568 | <i>PPP2R1A</i> | -0,28 | 2,50E-03 | -0,31 | 8,75E-04 | -0,80 | 1,98E-21 | -0,34 | 1,09E-04 |
| ENSG00000166562 | <i>SEC11C</i> | -0,66 | 1,38E-11 | -0,35 | 9,34E-04 | -1,07 | 1,53E-08 | -0,68 | 4,29E-04 |
| ENSG00000196588 | <i>MKL1</i> | -0,65 | 2,59E-05 | -0,53 | 9,36E-04 | -1,22 | 5,24E-26 | -0,37 | 2,52E-03 |
| ENSG00000101752 | <i>MIB1</i> | -0,35 | 5,90E-05 | -0,30 | 1,14E-03 | -0,39 | 5,80E-06 | -0,48 | 1,05E-08 |
| ENSG00000148426 | <i>C10ORF47</i> | -0,90 | 4,06E-07 | -0,60 | 1,21E-03 | -0,54 | 3,94E-03 | -0,54 | 3,69E-03 |
| ENSG00000085788 | <i>DDHD2</i> | -0,58 | 1,87E-08 | -0,36 | 1,23E-03 | -0,58 | 5,66E-07 | -0,48 | 3,01E-05 |
| ENSG00000108557 | <i>RAI1</i> | -0,41 | 1,62E-03 | -0,42 | 1,30E-03 | -0,60 | 1,09E-07 | -0,98 | 9,49E-19 |
| ENSG00000171456 | <i>ASXL1</i> | -0,41 | 2,96E-07 | -0,27 | 1,30E-03 | -0,27 | 5,13E-04 | -0,42 | 3,02E-08 |
| ENSG00000064309 | <i>CDON</i> | -0,58 | 1,95E-04 | -0,52 | 1,41E-03 | -0,73 | 4,40E-06 | -0,73 | 3,75E-06 |
| ENSG00000188021 | <i>UBQLN2</i> | -0,60 | 1,02E-04 | -0,51 | 1,51E-03 | -1,07 | 9,28E-13 | -0,53 | 4,92E-04 |
| ENSG00000047315 | <i>POLR2B</i> | -0,22 | 4,49E-03 | -0,25 | 1,61E-03 | -0,59 | 6,88E-17 | -0,25 | 8,38E-04 |
| ENSG00000163479 | <i>SSR2</i> | -0,46 | 1,53E-09 | -0,26 | 1,68E-03 | -0,57 | 3,98E-17 | -0,33 | 1,82E-06 |
| ENSG00000142186 | <i>SCYL1</i> | -0,64 | 1,27E-12 | -0,30 | 2,16E-03 | -0,39 | 2,35E-04 | -0,35 | 1,21E-03 |
| ENSG00000100029 | <i>PES1</i> | -0,50 | 4,53E-06 | -0,35 | 2,18E-03 | -1,05 | 1,54E-33 | -0,31 | 8,17E-04 |
| ENSG00000198860 | <i>TSEN15</i> | -0,56 | 1,68E-05 | -0,42 | 2,23E-03 | -0,46 | 1,73E-04 | -0,44 | 3,18E-04 |
| ENSG00000115718 | <i>PROC</i> | -0,40 | 1,43E-06 | -0,27 | 2,47E-03 | -1,05 | 1,34E-07 | -0,87 | 1,36E-05 |
| ENSG00000023445 | <i>BIRC3</i> | -0,58 | 9,99E-03 | -0,68 | 2,51E-03 | -1,61 | 6,73E-21 | -0,68 | 8,45E-05 |
| ENSG00000101294 | <i>HM13</i> | -0,29 | 5,87E-04 | -0,26 | 2,55E-03 | -0,25 | 1,17E-03 | -0,27 | 5,51E-04 |
| ENSG00000146858 | <i>ZC3HAV1L</i> | -0,55 | 7,19E-03 | -0,62 | 2,59E-03 | -1,03 | 2,53E-09 | -0,81 | 3,46E-06 |
| ENSG00000196781 | <i>LOC645381</i> | -0,30 | 1,86E-03 | -0,29 | 2,94E-03 | -0,22 | 8,31E-03 | -0,27 | 1,22E-03 |
| ENSG00000064999 | <i>ANKS1A</i> | -0,35 | 1,13E-03 | -0,33 | 2,95E-03 | -0,84 | 2,74E-17 | -0,68 | 4,24E-12 |

| | | | | | | | | | |
|-----------------|----------------|-------|----------|-------|----------|-------|----------|-------|----------|
| ENSG00000129187 | <i>DCTD</i> | -0,41 | 7,27E-06 | -0,29 | 3,08E-03 | -0,70 | 3,15E-09 | -0,33 | 7,37E-03 |
| ENSG00000049449 | <i>RCN1</i> | -0,96 | 9,77E-16 | -0,38 | 3,29E-03 | -0,84 | 7,61E-22 | -1,29 | 4,85E-49 |
| ENSG00000183723 | <i>CMTM4</i> | -0,49 | 1,73E-08 | -0,28 | 3,32E-03 | -0,52 | 9,77E-07 | -0,84 | 8,03E-16 |
| ENSG00000117505 | <i>DR1</i> | -0,37 | 5,42E-04 | -0,32 | 3,33E-03 | -0,80 | 3,42E-16 | -0,60 | 1,01E-09 |
| ENSG00000182979 | <i>MTA1</i> | -0,56 | 1,66E-06 | -0,36 | 3,40E-03 | -0,50 | 4,17E-06 | -0,30 | 7,33E-03 |
| ENSG00000155130 | <i>MARCKS</i> | -0,48 | 3,00E-07 | -0,29 | 3,40E-03 | -0,91 | 1,45E-33 | -0,22 | 7,08E-03 |
| ENSG00000131446 | <i>MGAT1</i> | -0,54 | 2,35E-10 | -0,27 | 3,49E-03 | -0,81 | 2,47E-21 | -0,46 | 2,01E-07 |
| ENSG00000132463 | <i>GRSF1</i> | -0,30 | 5,42E-04 | -0,26 | 4,29E-03 | -0,72 | 1,14E-20 | -0,83 | 2,68E-27 |
| ENSG00000198142 | <i>ANKRD57</i> | -0,49 | 8,44E-08 | -0,28 | 4,64E-03 | -0,47 | 3,96E-05 | -0,57 | 3,71E-07 |
| ENSG00000116251 | <i>RPL22</i> | -0,53 | 8,27E-09 | -0,28 | 5,00E-03 | -0,57 | 6,54E-09 | -0,38 | 1,41E-04 |
| ENSG00000160888 | <i>IER2</i> | -0,58 | 2,38E-04 | -0,45 | 6,50E-03 | -0,68 | 5,84E-07 | -0,47 | 7,77E-04 |
| ENSG00000167118 | <i>URM1</i> | -0,33 | 6,29E-03 | -0,33 | 6,94E-03 | -0,67 | 3,16E-08 | -0,36 | 3,96E-03 |
| ENSG00000116478 | <i>HDAC1</i> | -0,31 | 2,96E-04 | -0,24 | 6,95E-03 | -0,52 | 2,42E-10 | -0,27 | 1,59E-03 |
| ENSG00000163930 | <i>BAP1</i> | -0,26 | 4,31E-03 | -0,25 | 7,39E-03 | -0,65 | 2,96E-12 | -0,45 | 2,06E-06 |
| ENSG00000168209 | <i>DDIT4</i> | -1,59 | 3,06E-25 | -0,43 | 7,79E-03 | -1,29 | 1,89E-08 | -0,79 | 7,10E-04 |
| ENSG00000112715 | <i>VEGFA</i> | -0,95 | 1,63E-21 | -0,29 | 8,50E-03 | -0,27 | 2,71E-03 | -0,47 | 5,32E-08 |
| ENSG00000178607 | <i>ERN1</i> | -0,95 | 3,88E-08 | -0,49 | 8,65E-03 | -0,96 | 8,01E-07 | -0,80 | 4,36E-05 |
| ENSG00000166068 | <i>SPRED1</i> | -0,51 | 2,52E-04 | -0,39 | 8,90E-03 | -0,55 | 2,25E-04 | -0,40 | 8,70E-03 |