



UvA-DARE (Digital Academic Repository)

Gene expression in chromosomal Ridge domains : influence on transcription, mRNA stability, codon usage, and evolution

Gierman, H.J.

Publication date
2010

[Link to publication](#)

Citation for published version (APA):

Gierman, H. J. (2010). *Gene expression in chromosomal Ridge domains : influence on transcription, mRNA stability, codon usage, and evolution*. [Thesis, fully internal, Universiteit van Amsterdam].

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

Contents

1.	Introduction: Gene regulation by chromosomal domains	9
2.	Domain-wide regulation of gene expression in the human genome	23
3.	Genes in chromosomal Ridge domains have increased mRNA folding stability and half-life, further contributing to their high expression	53
4.	A model to explain natural selection for extreme levels of protein expression in the human genome	77
5.	EZH2 overexpression associated with gain of chromosome arm 7q is essential for neuroblastoma cell cycle progression and a marker of poor prognosis	101
6.	Discussion: Mechanism of Ridges and implications for evolution	129
7.	Summary	147
8.	Nederlandse samenvatting	153
9.	Dankwoord	158
10.	Curriculum vitae	165
11.	List of publications	167