

HNF1a regulates Foxa3

Ferrer, J., Jensen, J., Tello-Ruiz, MK.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

The contents of this document may be freely copied and distributed in any media, provided the authors, plus the institutions, are credited, as stated under the terms of <u>Creative Commons Attribution 4.0 International (CC BY 4.0)</u>
<u>License</u>. For more information see our <u>license</u>.

10/05/2024

https://reactome.org

Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references

- Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics*, 18, 142.
- Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467.
- Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655.
- Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph data-base: Efficient access to complex pathway data. *PLoS computational biology, 14*, e1005968.

Reactome database release: 88

This document contains 1 reaction (see Table of Contents)

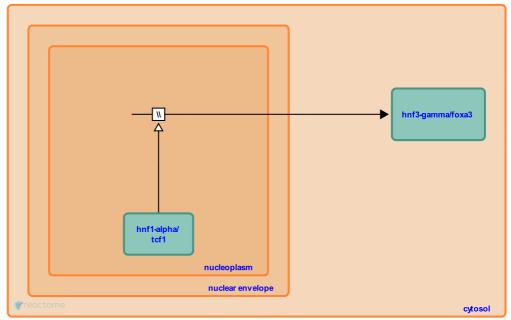
https://reactome.org Page 2

HNF1a regulates Foxa3 ₹

Stable identifier: R-MMU-186617

Type: omitted

Compartments: nucleoplasm, cytosol



HNF1a was shown to bind a 3'-region of the Foxa3 (Hnf3g) gene by chromatin immunoprecipitation (Boj et al. 2001). The deletion in mice of an enhancer region that binds HNF1a located in the 3' region of the Foxa3 gene was shown to affect Foxa3 gene expression in liver, pancreas and gut (Hiemisch et al. 1997). Genetic evidence exists that HNF1a regulates Foxa3 in Hnf1alpha -/- mice (Boj et al. 2001).

Literature references

Parrizas, M., Maestro, MA., Ferrer, J., Boj, SF. (2001). A transcription factor regulatory circuit in differentiated pancreatic cells. *Proc Natl Acad Sci U S A*, 98, 14481-6.

Schutz, G., Kaestner, KH., Hiemisch, H. (1997). Transcriptional regulation in endoderm development: characterization of an enhancer controlling Hnf3g expression by transgenesis and targeted mutagenesis. *EMBO J, 16*, 3995-4006.

Editions

2006-12-20	Edited	Tello-Ruiz, MK.
2008-05-13	Reviewed	Jensen, J.
2008-05-24	Authored	Tello-Ruiz, MK., Ferrer, J.