

Expression of Ddit3

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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.

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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 database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 88

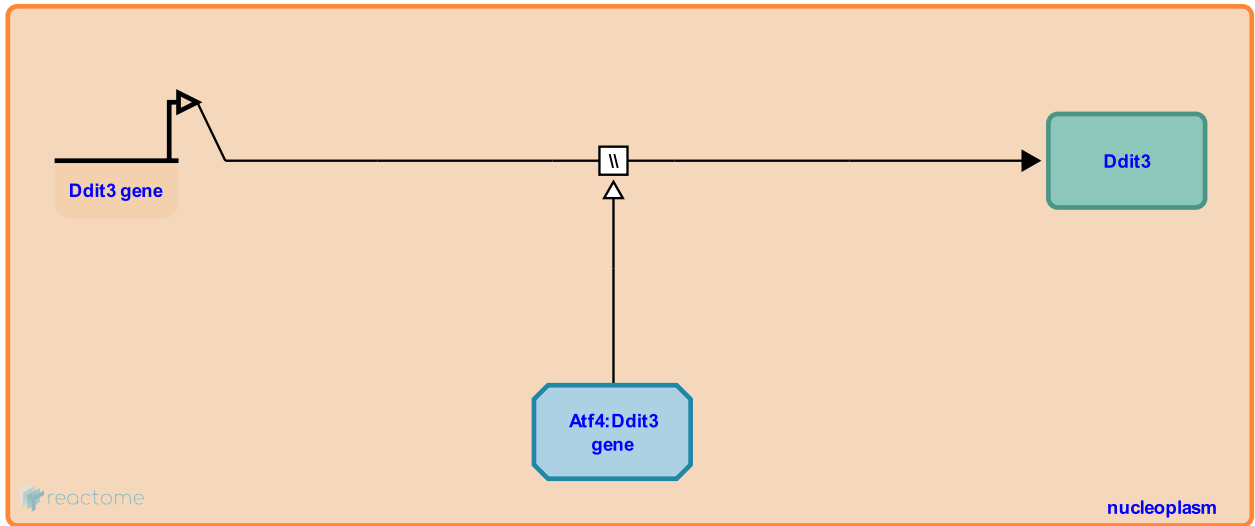
This document contains 1 reaction ([see Table of Contents](#))

Expression of Ddit3 ↗

Stable identifier: R-RNO-9635847

Type: omitted

Compartments: nucleoplasm



The Ddit3 (CHOP) gene is transcribed to yield mRNA and the mRNA is translated to yield protein (Marten et al. 1994, Fawcett et al. 1999). Expression of Ddit3 is enhanced by Atf4, which binds a composite CEBP-ATF element in the promoter of the Ddit3 (CHOP) gene (Fawcett et al. 1999).

Literature references

Straus, DS., Marten, NW., Hayden, JM., Burke, EJ. (1994). Effect of amino acid limitation on the expression of 19 genes in rat hepatoma cells. *FASEB J.*, 8, 538-44. ↗

Holbrook, NJ., Fawcett, TW., Martindale, JL., Hai, T., Guyton, KZ. (1999). Complexes containing activating transcription factor (ATF)/cAMP-responsive-element-binding protein (CREB) interact with the CCAAT/enhancer-binding protein (C/EBP)-ATF composite site to regulate Gadd153 expression during the stress response. *Biochem J.*, 339, 135-41. ↗

Editions

2019-02-06	Authored, Edited	May, B.
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