

Expression of TFB2M

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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

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Reactome database release: 70

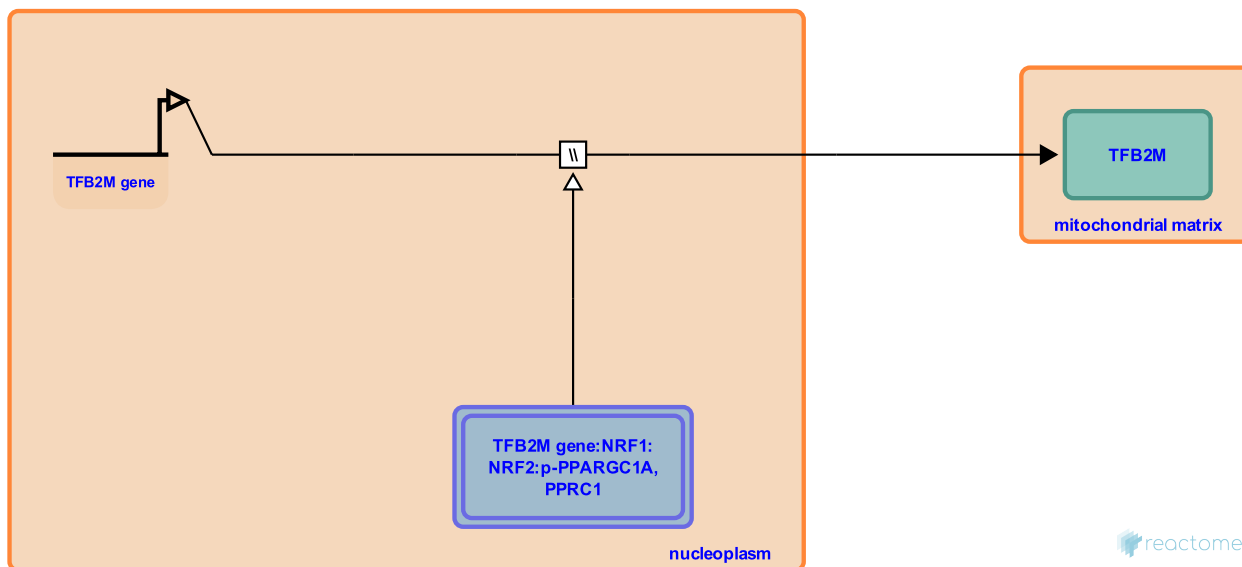
This document contains 1 reaction ([see Table of Contents](#))

Expression of TFB2M [↗](#)

Stable identifier: R-HSA-1592252

Type: omitted

Compartments: nucleoplasm, mitochondrial matrix



The TFB2M gene is transcribed to yield mRNA and the mRNA is translated to yield protein. The TFB2M precursor is then imported into the mitochondrial matrix where it acts as both a 12S RNA methylase and a DNA-binding transcription factor (Gleyzer et al. 2005, Cotney and Shadel 2006, Vercauteren et al. 2008).

Literature references

Vercauteren, K., Gleyzer, N., Scarpulla, RC. (2008). PGC-1-related coactivator complexes with HCF-1 and NRF-2beta in mediating NRF-2(GABP)-dependent respiratory gene expression. *J Biol Chem*, 283, 12102-11. [↗](#)

Cotney, J., Shadel, GS. (2006). Evidence for an early gene duplication event in the evolution of the mitochondrial transcription factor B family and maintenance of rRNA methyltransferase activity in human mtTFB1 and mtTFB2. *J. Mol. Evol.*, 63, 707-17. [↗](#)

Gleyzer, N., Vercauteren, K., Scarpulla, RC. (2005). Control of mitochondrial transcription specificity factors (TFB1M and TFB2M) by nuclear respiratory factors (NRF-1 and NRF-2) and PGC-1 family coactivators. *Mol Cell Biol*, 25, 1354-66. [↗](#)

Editions

2011-08-20	Authored, Edited	May, B.
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