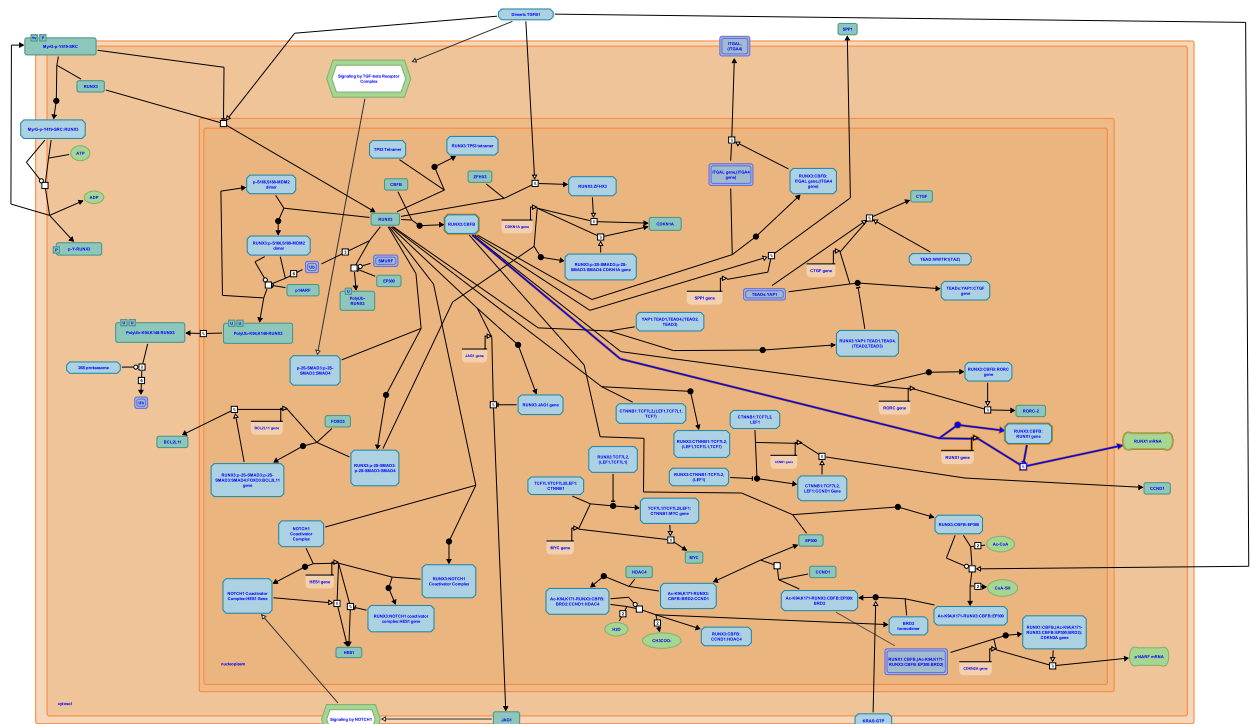


RUNX3 regulates RUNX1-mediated tran- scription



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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

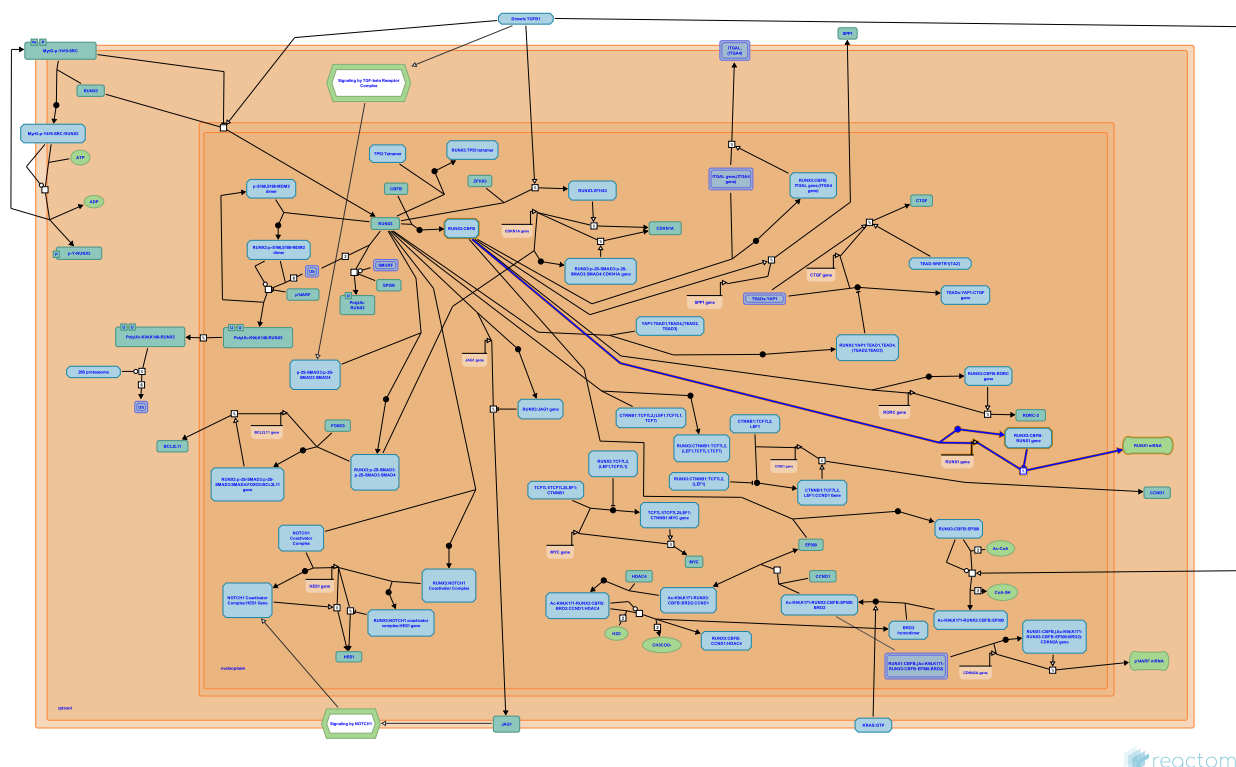
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Reactome database release: 74

This document contains 1 pathway and 2 reactions ([see Table of Contents](#))

RUNX3 regulates RUNX1-mediated transcription ↗

Stable identifier: R-HSA-8951911



RUNX3 binds to Runx response elements in the distal (P1) promoter of the RUNX1 gene, repressing RUNX1 transcription (Spender et al. 2005).

Literature references

Spender, LC., Whiteman, HJ., Karstegl, CE., Farrell, PJ. (2005). Transcriptional cross-regulation of RUNX1 by RUNX3 in human B cells. *Oncogene*, 24, 1873-81. ↗

Editions

2016-12-13	Authored	Orlic-Milacic, M.
2017-01-31	Reviewed	Ito, Y., Chuang, LS.
2017-01-31	Edited	Orlic-Milacic, M.

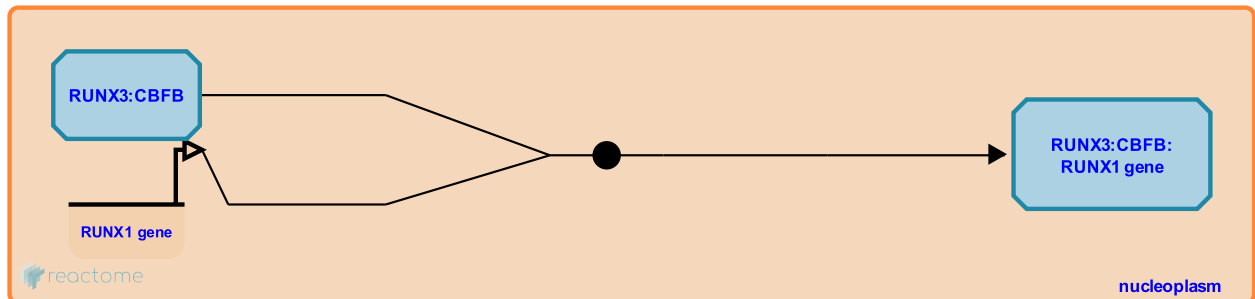
RUNX3 binds the RUNX1 promoter ↗

Location: [RUNX3 regulates RUNX1-mediated transcription](#)

Stable identifier: R-HSA-8951910

Type: binding

Compartments: nucleoplasm



RUNX3, presumably associated with CBF β , binds Runx response elements in the distal (P1) promoter of the RUNX1 gene (Spender et al. 2005). All RUNX family members contain Runx response elements in their promoters (Levanon and Groner 2004).

Followed by: [RUNX1 gene expression is inhibited by RUNX3](#)

Literature references

Spender, LC., Whiteman, HJ., Karstegl, CE., Farrell, PJ. (2005). Transcriptional cross-regulation of RUNX1 by RUNX3 in human B cells. *Oncogene*, 24, 1873-81. ↗

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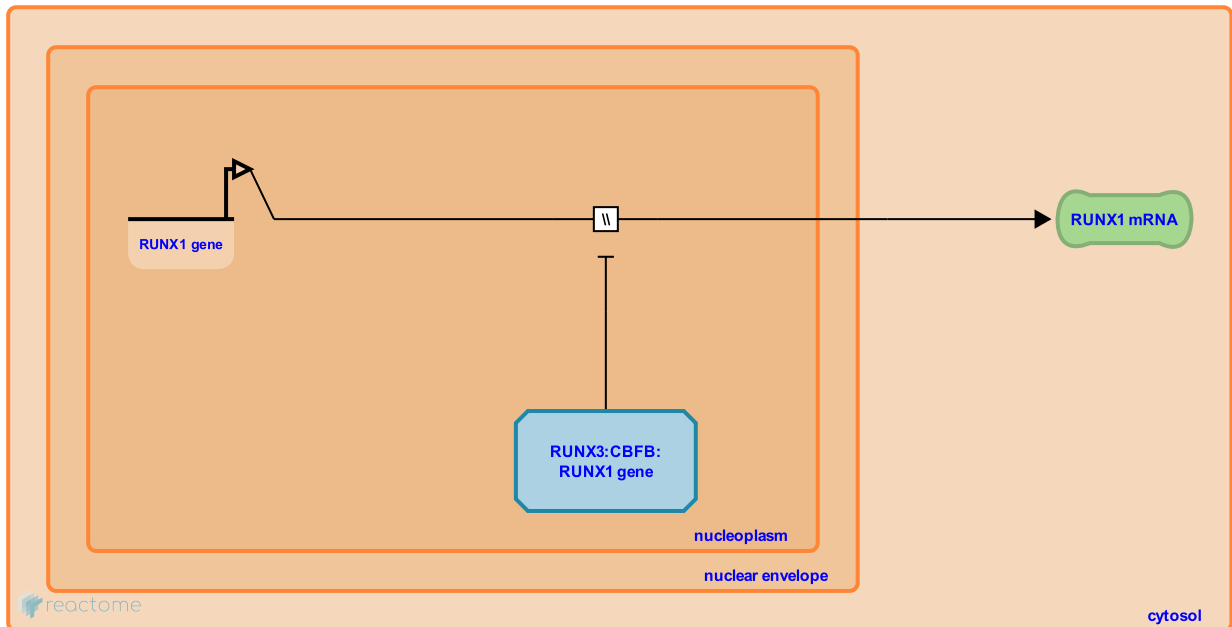
RUNX1 gene expression is inhibited by RUNX3 [↗](#)

Location: [RUNX3 regulates RUNX1-mediated transcription](#)

Stable identifier: R-HSA-8951926

Type: omitted

Compartments: nucleoplasm



Transcription of the RUNX1 gene is repressed by binding of RUNX3 to Runx response elements in the distal (P1) promoter of RUNX1. Expression of RUNX3 is therefore mutually exclusive with expression of RUNX1 in human B cells (Spender et al. 2005).

Preceded by: [RUNX3 binds the RUNX1 promoter](#)

Literature references

Spender, LC., Whiteman, HJ., Karstegl, CE., Farrell, PJ. (2005). Transcriptional cross-regulation of RUNX1 by RUNX3 in human B cells. *Oncogene*, 24, 1873-81. [↗](#)

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