

RUNX1 binds ELF1

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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

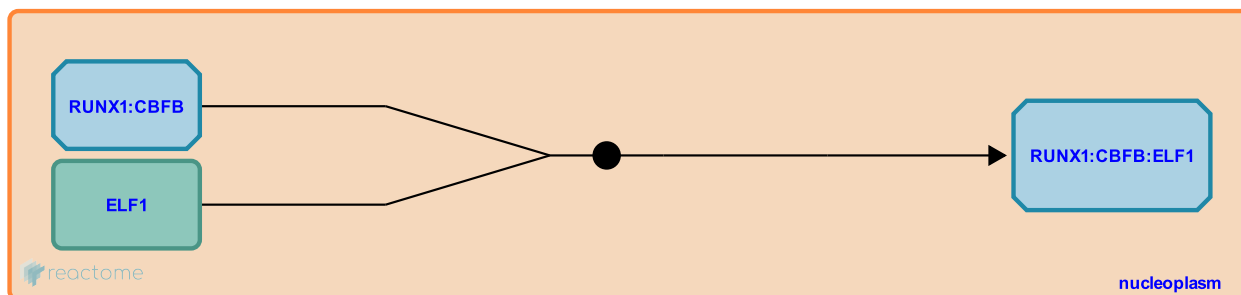
This document contains 1 reaction ([see Table of Contents](#))

RUNX1 binds ELF1 [↗](#)

Stable identifier: R-HSA-8938913

Type: binding

Compartments: nucleoplasm



The RUNX1:CBFB complex binds to ELF1 (MEF), a member of the ETS family of transcription factors (Mao et al. 1999, Cho et al. 2004). The interaction involves the ETS-interacting subdomain (EID) in the C-terminal portion of the RUNX1 Runt domain and a region of ELF1 that is N-terminal to its ETS domain. ELF1 does not directly interact with CBFB (Mao et al. 1999).

Literature references

Mao, S., Frank, RC., Zhang, J., Miyazaki, Y., Nimer, SD. (1999). Functional and physical interactions between AML1 proteins and an ETS protein, MEF: implications for the pathogenesis of t(8;21)-positive leukemias. *Mol. Cell. Biol.*, 19, 3635-44. [↗](#)

Cho, JY., Akbarali, Y., Zerbini, LF., Gu, X., Boltax, J., Wang, Y. et al. (2004). Isoforms of the Ets transcription factor NERF/ELF-2 physically interact with AML1 and mediate opposing effects on AML1-mediated transcription of the B cell-specific blk gene. *J. Biol. Chem.*, 279, 19512-22. [↗](#)

Editions

2016-09-14	Authored	Orlic-Milacic, M.
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