

CCND3,(CCND1,CCND2) binds RUNX1

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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

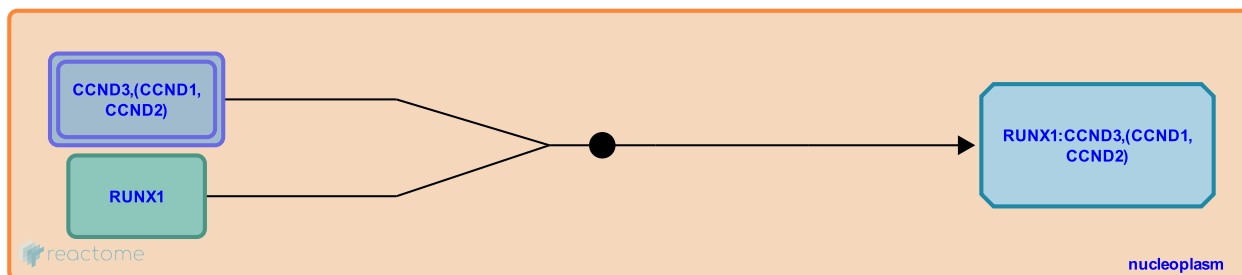
This document contains 1 reaction ([see Table of Contents](#))

CCND3,(CCND1,CCND2) binds RUNX1 [↗](#)

Stable identifier: R-HSA-8938867

Type: binding

Compartments: nucleoplasm



Cyclin D3 (CCND3) binds to the runt domain and the activation domain (AD) of RUNX1, thus inhibiting RUNX1 association with CBFβ and RUNX1 binding to DNA. Based on *in vitro* studies, cyclins D1 (CCND1) and D2 (CCND2) can also bind to RUNX1 (Peterson et al. 2005).

Literature references

Peterson, L.F., Boyapati, A., Ranganathan, V., Iwama, A., Tenen, D.G., Tsai, S. et al. (2005). The hematopoietic transcription factor AML1 (RUNX1) is negatively regulated by the cell cycle protein cyclin D3. *Mol. Cell. Biol.*, 25, 10205-19. [↗](#)

Editions

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