

CANDI binds CUL1

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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: 88

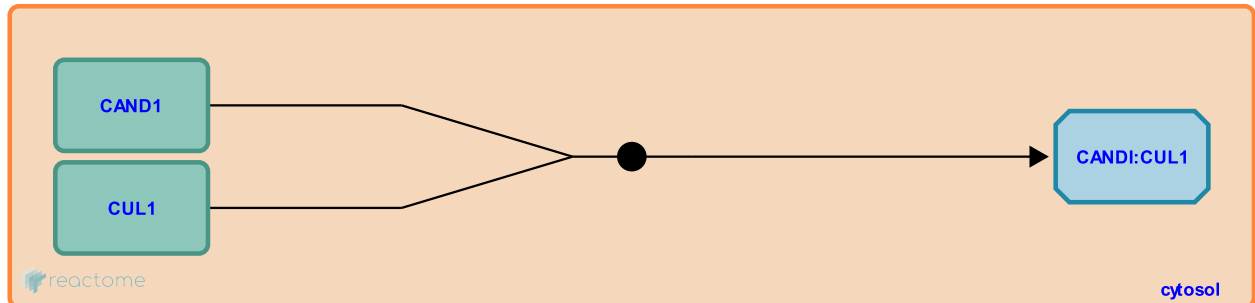
This document contains 1 reaction ([see Table of Contents](#))

CANDI binds CUL1 [↗](#)

Stable identifier: R-HSA-5691131

Type: binding

Compartments: cytosol



Cullin-associated NEDD8-dissociated protein 1 (CANDI, TIP120) is a key assembly factor of SCF (SKP1-CUL1-F-box protein) E3 ubiquitin ligase complexes, acting as a F-box protein exchange factor. CANDI binds cullin-1 (CUL1), preventing its association with SKP1 thereby disrupting the formation of SCF complexes. Neddylated CUL1 prevents CANDI binding (Zheng et al. 2002, Goldenberg et al. 2004).

Literature references

Liu, J., Cascio, TC., Zheng, N., Xiong, Y., Shumway, SD., Garbutt, KC. et al. (2004). Structure of the Cand1-Cul1-Roc1 complex reveals regulatory mechanisms for the assembly of the multisubunit cullin-dependent ubiquitin ligases. *Cell*, 119, 517-28. [↗](#)

Lykke-Andersen, K., Harrell, JM., Ryzhikov, S., Sun, H., Wei, N., Shim, EH. et al. (2002). CAND1 binds to unneddylated CUL1 and regulates the formation of SCF ubiquitin E3 ligase complex. *Mol. Cell*, 10, 1519-26. [↗](#)

Editions

2015-05-05	Authored, Edited	Jassal, B.
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