reactome

Formation of CSL-NICD coactivator complex

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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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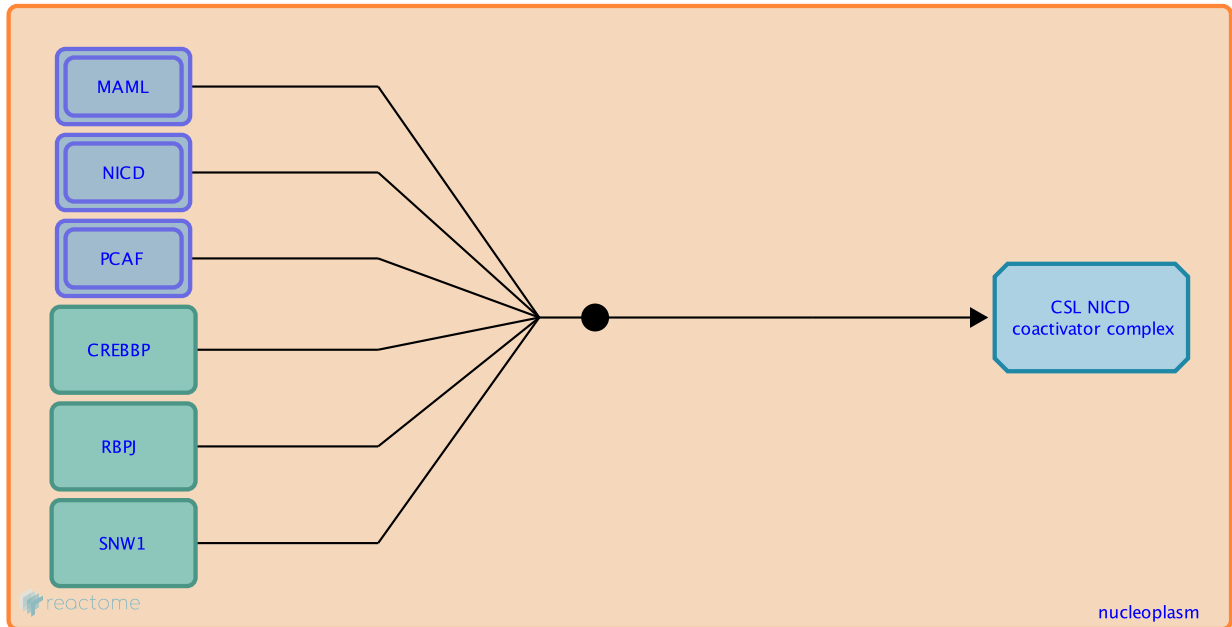
Reactome database release: 77

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Formation of CSL-NICD coactivator complex ↗

Stable identifier: R-HSA-212356

Type: binding

Compartments: nucleoplasm

Mammalian CSL Coactivator Complexes: Upon activation of Notch signaling, cleavage of the transmembrane Notch receptor releases the Notch Intracellular Domain (NICD), which translocates to the nucleus, where it binds to CSL and displaces the corepressor complex from CSL (reviewed in Mumm, 2000 and Kovall, 2007). The resulting CSL-NICD "binary complex" then recruits an additional coactivator, Mastermind (Mam), to form a ternary complex. The ternary complex then recruits additional, more general coactivators, such as CREB Binding Protein (CBP), or the related p300 coactivator, and a number of Histone Acetytransferase (HAT) proteins, including GCN5 and PCAF (Fryer, 2002). There is evidence that Mam also can subsequently recruit specific kinases that phosphorylate NICD, to downregulate its function and turn off Notch signaling (Fryer, 2004).

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Editions

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