NOTCH2 binds CNTN1

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics, 18*, 142. ↗

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology, 14*, e1005968. ↗

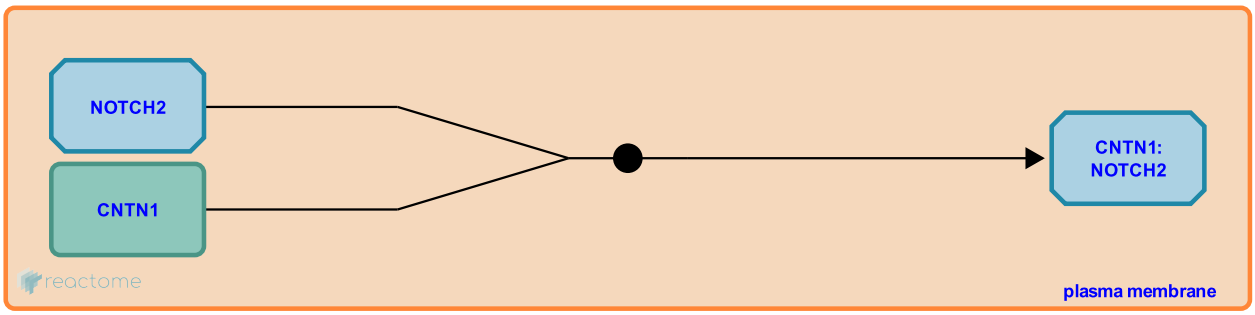
NOTCH2 binds CNTN1 ↗

Stable identifier: R-HSA-2220816

Type: binding

Compartments: plasma membrane

Inferred from: Notch2 binds Cntn1 (Rattus norvegicus)



CNTN1 (F3, contactin-1) is a neuronal cell adhesion protein that can bind and activate NOTCH2, as well as NOTCH1, and these interactions are thought to play a role in oligodendrocyte maturation. While NOTCH1 activation by CNTN1 was shown to be deltex-dependent, the involvement of deltex in CNTN1-mediated activation of NOTCH2, although likely, has not been examined (Hu et al. 2003).

Literature references

Small, D., Cui, XY., Ling, EA., Hirai, H., Pallen, CJ., Okano, H. et al. (2003). F3/contactin acts as a functional ligand for Notch during oligodendrocyte maturation. *Cell, 115*, 163-75. ↗

Editions

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