

SLIT2 binds Dystroglycan

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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

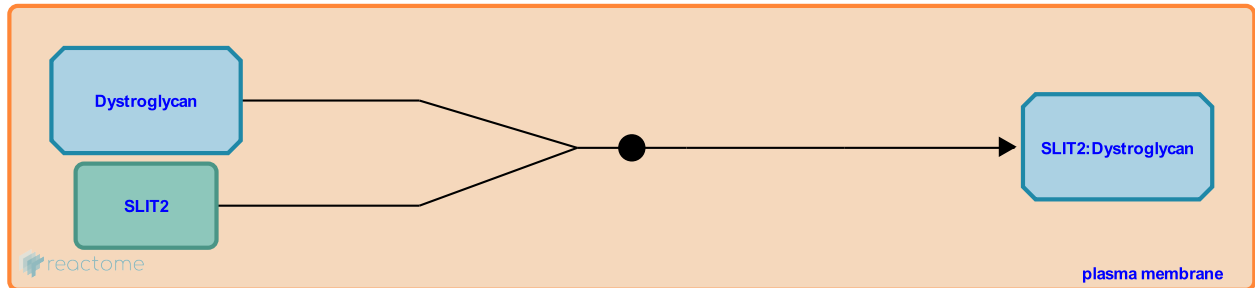
This document contains 1 reaction ([see Table of Contents](#))

SLIT2 binds Dystroglycan [↗](#)

Stable identifier: R-HSA-9010872

Type: binding

Compartments: plasma membrane



SLIT2 binds to dystroglycan (DAG1). The interaction involves the C-terminal region of human SLIT2. The species origin of the DAG1 construct was not specified and is assumed to be human. Dystroglycan is required for proper SLIT2 localization within the basement membrane and the floor plate. Dystroglycan glycosylation, mediated at least in part by B4GAT1 (B3GNT1) and ISPD, is likely required for its interaction with SLIT2, but it has not been annotated. Mice mutant for B4gat1, Ispd or Dag1 have axon guidance defects similar to those observed in Slit or Robo mutant mice (Wright et al. 2012).

Literature references

Wright, KM., Lyon, KA., Leung, H., Leahy, DJ., Ma, L., Ginty, DD. (2012). Dystroglycan organizes axon guidance cue localization and axonal pathfinding. *Neuron*, 76, 931-44. [↗](#)

Editions

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