

ADD1:ADD3 binds DMTN

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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

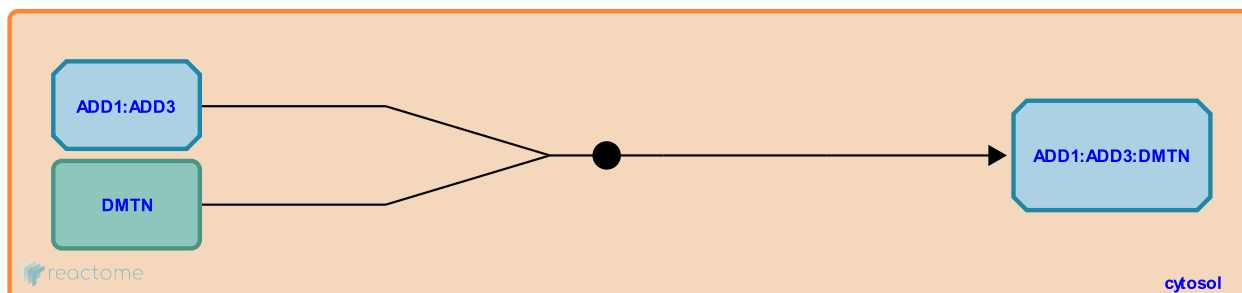
This document contains 1 reaction ([see Table of Contents](#))

ADD1:ADD3 binds DMTN [↗](#)

Stable identifier: R-HSA-5226999

Type: binding

Compartments: cytosol



Alpha-adducin (ADD1 aka ADDA) (Joshi et al. 1991) is a ubiquitously expressed, membrane-cytoskeletal protein that can promote the assembly of the spectrin-actin network. It is functional in a heterodimeric form, in complex with either a beta (ADD2 aka ADDB) (Khan et al. 2008) or a gamma (ADD3 aka ADDL) subunit (Citterio et al. 2003). Either complex is able to bind dematin (DMTN) (Azim et al. 1995), a membrane-cytoskeletal protein that can induce F-actin bundles formation and stabilization. It can also bind the erythrocyte membrane glucose transporter 1 (SLC2A1 aka GLUT1), and hence stabilise the spectrin-actin network to the erythrocytic plasma membrane (Khan et al. 2008).

Literature references

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Editions

2014-01-09	Authored, Edited	Jassal, B.
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