

Phosphorylation of PLCgamma by Netrin-1

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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: 74

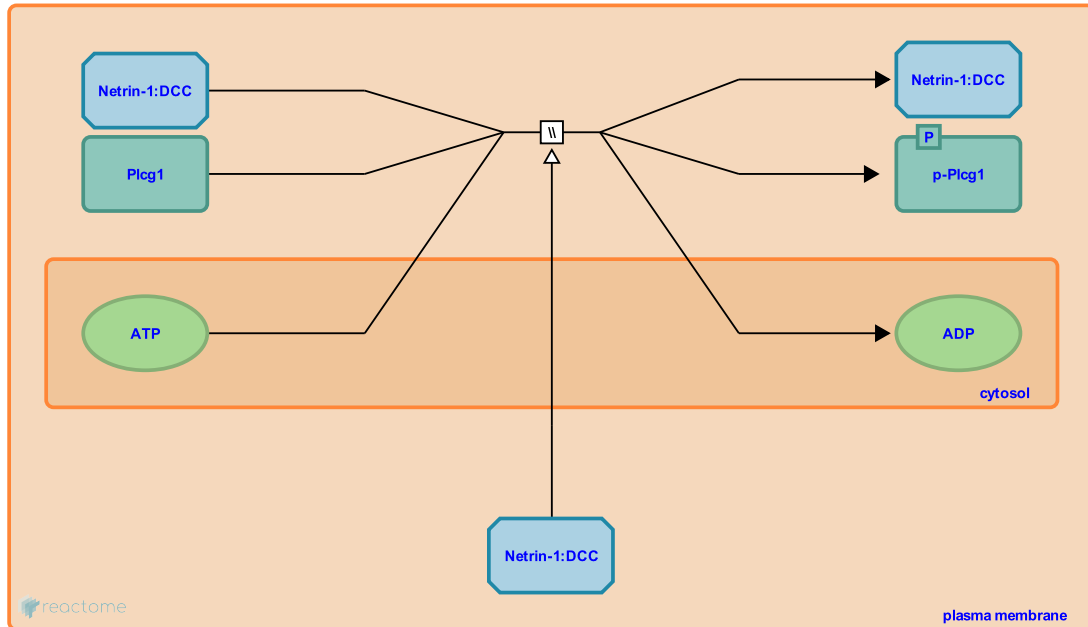
This document contains 1 reaction ([see Table of Contents](#))

Phosphorylation of PLCgamma by Netrin-1 [↗](#)

Stable identifier: R-RNO-622372

Type: omitted

Compartments: plasma membrane



Netrin-1-DCC mediated signaling rapidly phosphorylates PLCgamma. Netrin-1 mediated PLC activation depends on recruitment of PITPalpha to DCC. Stimulation of PLC signaling and hydrolysis of PIP2 by netrin-1 in neurons is time-dependent, with a maximal activity observed within 15 min of netrin-1 stimulation.

Literature references

Xie, Y., Hong, Y., Ma, XY., Ren, XR., Ackerman, S., Mei, L. et al. (2006). DCC-dependent phospholipase C signaling in netrin-1-induced neurite elongation. *J Biol Chem*, 281, 2605-11. [↗](#)

Editions

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