

# NLGNs binds PSD-95 subfamily members

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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. [↗](#)

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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. [↗](#)

Reactome database release: 88

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

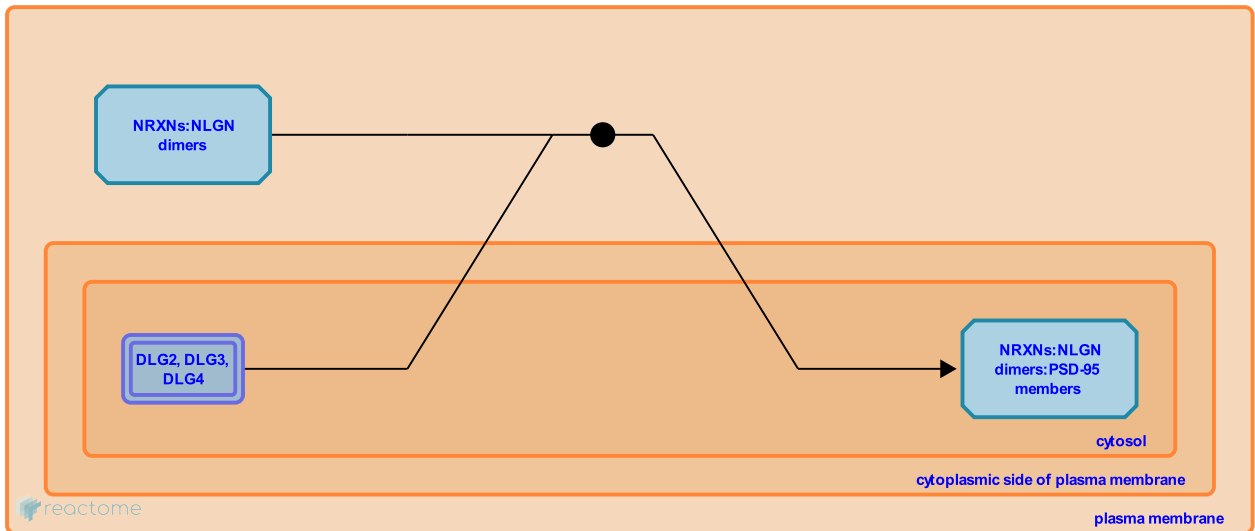
**NLGNs binds PSD-95 subfamily members** ↗

**Stable identifier:** R-HSA-6794345

**Type:** binding

**Compartments:** plasma membrane, cytosol

**Inferred from:** [Nlgn1 binds PSD-95 \(Rattus norvegicus\)](#)



Neuroligins (NLGNs) bind to the third PDZ domain of postsynaptic density (PSD)-95 whereas NMDA receptor and K<sup>+</sup> channels interact with the first and the second PDZ domains. The cytoplasmic domains of all three neuroligins interacts with the NH2-terminus of PSD-95 and its homologs PSD-93 and SAP102, which contains the three PDZ domains (Irie et al. 1997).

**Editions**

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