

DCC interacts with DIP13alpha

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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. [↗](#)

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Reactome database release: 88

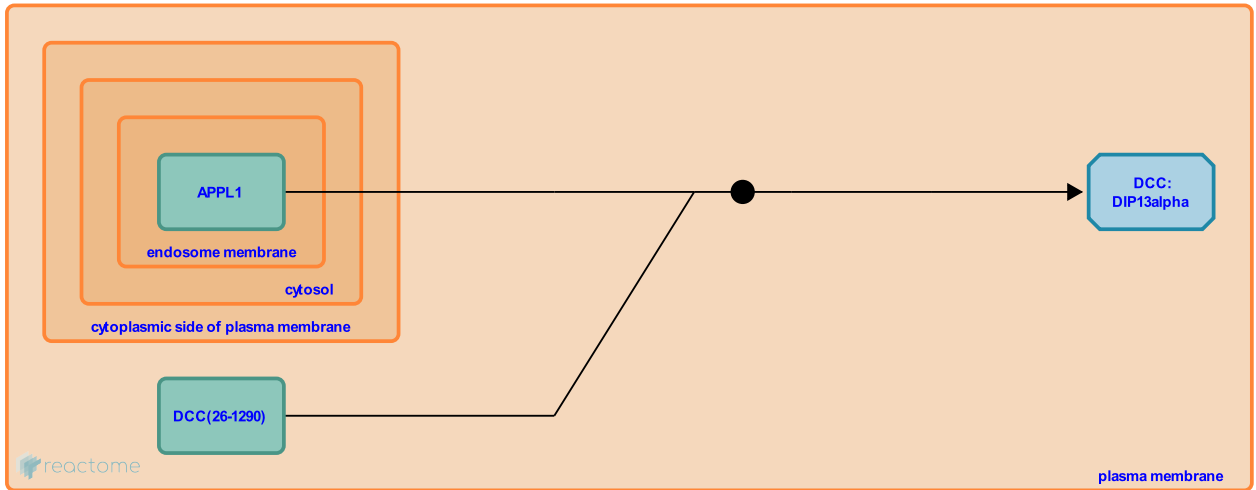
This document contains 1 reaction ([see Table of Contents](#))

DCC interacts with DIP13alpha ↗

Stable identifier: R-HSA-373717

Type: binding

Compartments: plasma membrane



The ADD domain of DCC binds DCC-interacting 13alpha (DIP13alpha), which serves as an adaptor mediating the DCC apoptotic signal. The DIP13alpha protein has a pleckstrin homology domain and a phosphotyrosine binding domain. It interacts with the ADD region on the DCC cytoplasmic domain that is available after the caspase cleavage. This interaction is required for the induction of apoptosis.

Literature references

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Mehlen, P., Bredesen, DE., Ye, X., Shin, H., Corset, V., Granger, L. et al. (2001). The dependence receptor DCC (deleted in colorectal cancer) defines an alternative mechanism for caspase activation. *Proc Natl Acad Sci U S A*, 98, 3416-21. ↗

Editions

2008-07-16	Authored	Garapati, P V.
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