

GDNF,NRTN bind RET:GFRA1,GFRA2

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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

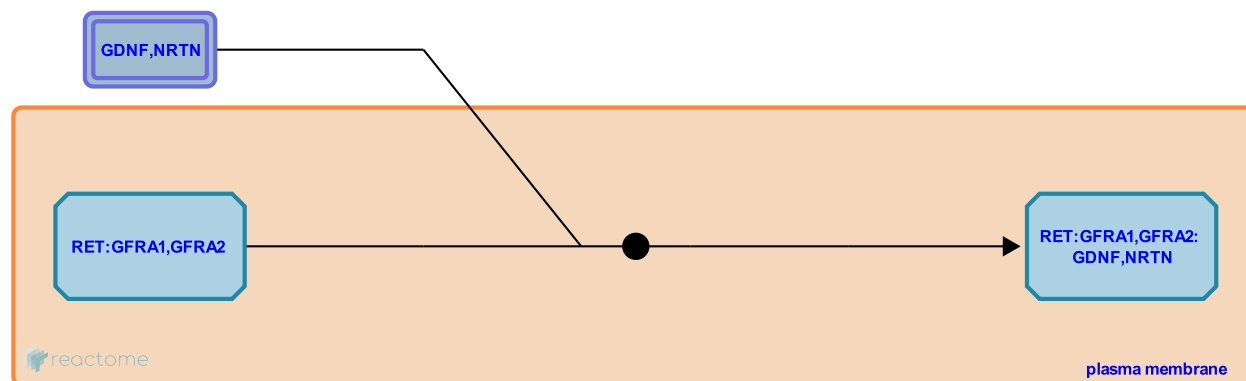
This document contains 1 reaction ([see Table of Contents](#))

GDNF,NRTN bind RET:GFRA1,GFRA2 ↗

Stable identifier: R-HSA-8853789

Type: binding

Compartments: extracellular region, plasma membrane



Glial cell-derived neurotrophic factor (GDNF) (Lin et al. 1993) and neurturin (NRTN) (Kotzbauer et al. 1996) are ligands for GDNF family receptor-alpha (GFRA) 1 and 2 (Jing et al. 1996, 1997, Creedon et al. 1997, Baloh et al. 1997). Despite the cross activation in vitro, GDNF preferentially acts through RET:GFRA1 (Schuchardt et al. 1994, Moore et al. 1996, Pichel et al. 1996, Sanchez et al. 1996, Calcano et al. 1998, Endomoto et al. 1998, whereas NRTN preferentially acts through RET:GFRA2 (Heuckeroth et al. 1999, Rossi et al. 1999, Luo et al. 2004, 2009, Lindfors et al. 2006) in vivo.

Literature references

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Editions

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