p-5Y-RET complexes bind GRB2

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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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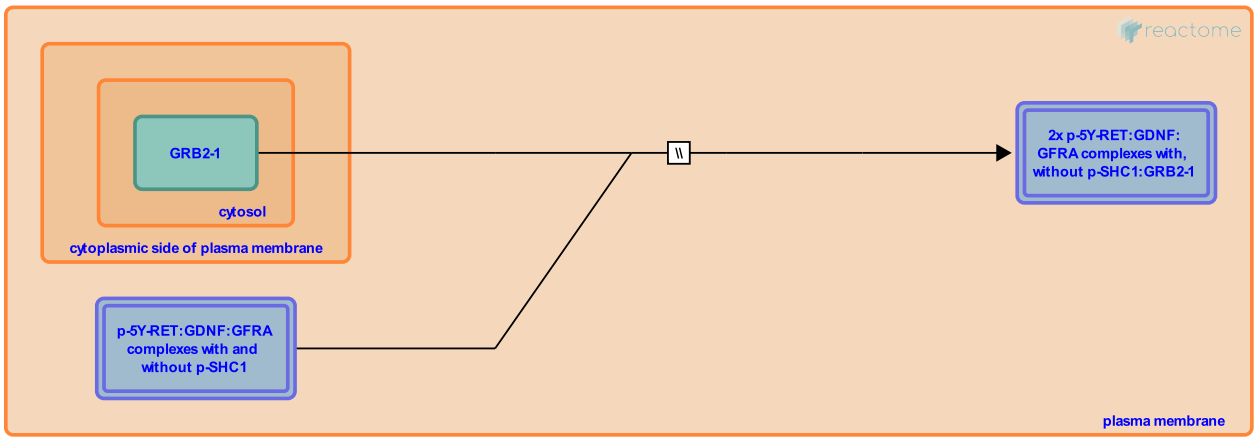
Stable identifier: R-HSA-8853793

Type: omitted

Compartments: cytosol, plasma membrane



GDNF stimulation of neuronal cells induces the assembly of a large protein complex containing RET, GRB2 and tyrosine-phosphorylated SHC1, p85 subunit of (PI3K), GAB2 (GAB1 in Hayashi et al. 2000), and Tyrosine-protein phosphatase non-receptor type 11 (PTPN11, SHP-2) (Besset et al. 2000). GAB1 was found in complexes with GRB2 only after GDNF treatment (Hayashi et al. 2000). This contrasts with reports in other systems where GAB2-GRB2 were reported to constitutively associate (Gu et al. 1998). The likely order of recruitment to RET is SHC1, GRB2, GAB1/2, similar to the signaling mechanism of the Interleukin-3 receptor (Gu et al. 2000) and many others (Adams et al. 2012).

Literature references

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Editions

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