

Binding of PIK3 regulatory alpha subunit to GRB2:GAB1

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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: 75

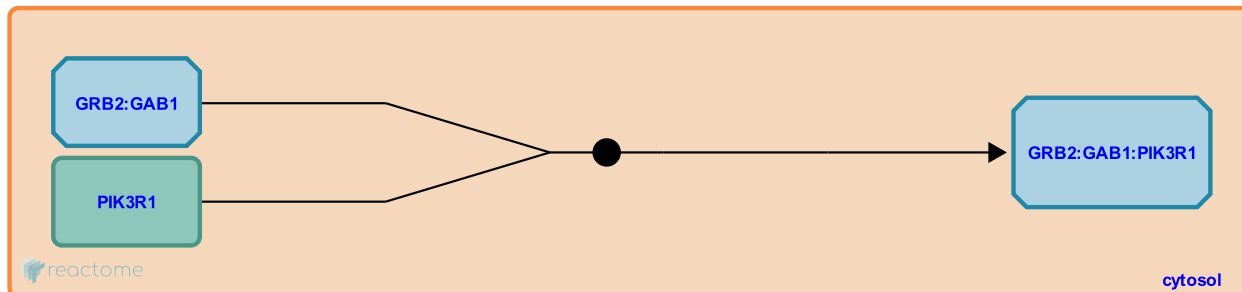
This document contains 1 reaction ([see Table of Contents](#))

Binding of PIK3 regulatory alpha subunit to GRB2:GAB1 [↗](#)

Stable identifier: R-HSA-177931

Type: binding

Compartments: cytosol



The Src homology 2 (SH2) domain of the phosphatidylinositol 3-kinase (PIK3) regulatory subunit (PIK3R1, i.e. PI3Kp85) binds to GAB1 in a phosphorylation-independent manner. GAB1 serves as a docking protein which recruits a number of downstream signalling proteins. PIK3R1 can bind to either GAB1 or phosphorylated GAB1.

Literature references

Onishi-Haraikawa, Y., Funaki, M., Gotoh, N., Shibuya, M., Inukai, K., Katagiri, H. et al. (2001). Unique phosphorylation mechanism of Gab1 using PI 3-kinase as an adaptor protein. *Biochem Biophys Res Commun*, 288, 476-82. [↗](#)

Editions

2006-10-10	Authored	Castagnoli, L.
2008-02-12	Reviewed	Heldin, CH.
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