

GRB2-1:SOS1 binds p-IRS1,p-IRS2

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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

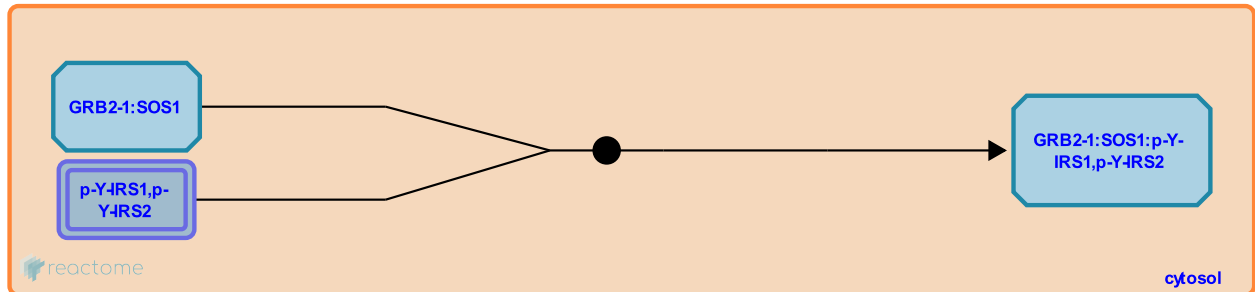
This document contains 1 reaction ([see Table of Contents](#))

GRB2-1:SOS1 binds p-IRS1,p-IRS2 ↗

Stable identifier: R-HSA-74736

Type: binding

Compartments: cytosol



Inactive p21ras:GDP is anchored to the plasma membrane by a farnesyl residue. Insulin stimulation results in phosphorylation of IRS1/2 on tyrosine residues. GRB2 binds the phosphotyrosines via its SH2 domain. As IRS is phosphorylated by the insulin receptor near to the plasma membrane, the GRB2:SOS1:IRS interaction brings SOS1 and p21 Ras into close proximity.

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Editions

2005-01-07	Authored	Charalambous, M.
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