SYK autophosphorylates

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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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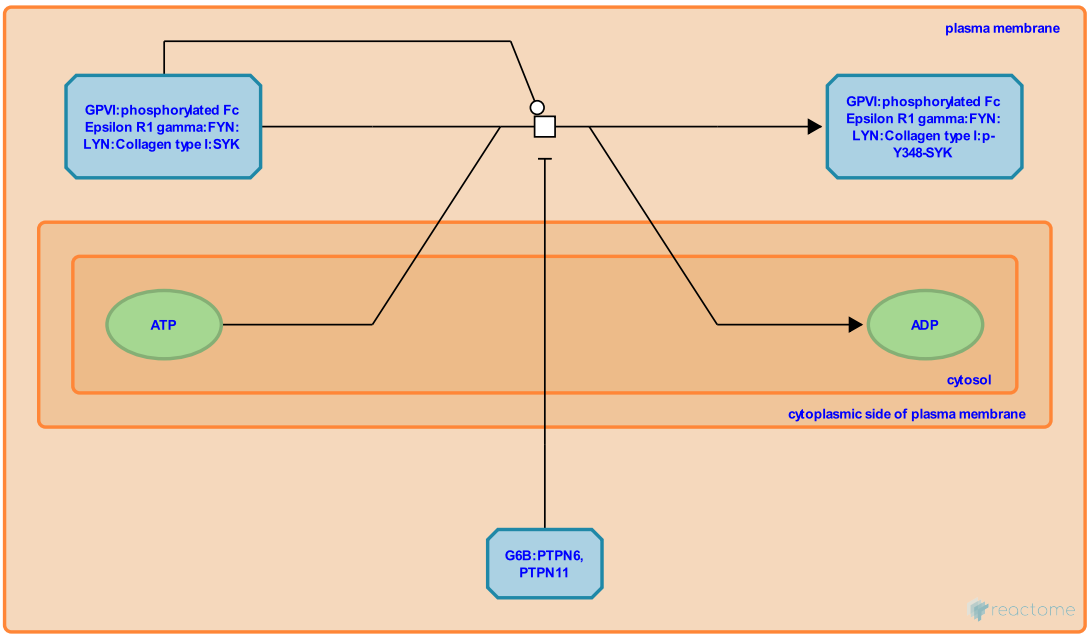
Stable identifier: R-HSA-453200

Type: transition

Compartments: cytosol, plasma membrane



Binding of Syk causes conformational changes that lead to Syk activation by autophosphorylation. Syk can be activated by a number of phosphorylation events, and it has been proposed that Syk may function as a switch whereby any of several possible stimuli trigger the acquisition of similar activated conformations. (Tsang et al. 2008). These phosphorylations both modulate Syk's catalytic activity (Keshvara et al. 1997) and generate docking sites for SH2 domain-containing proteins, such as c-Cbl, PLC, and Vav1. Syk tyrosine phosphorylation is reduced in the presence of the ITIM-containing immunoglobulin superfamily transmembrane protein G6B (Mori et al. 2008).

Literature references

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Editions

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