Inhibition of PP2A activity by phosphorylation of the catalytic subunit at tyrosine Y307

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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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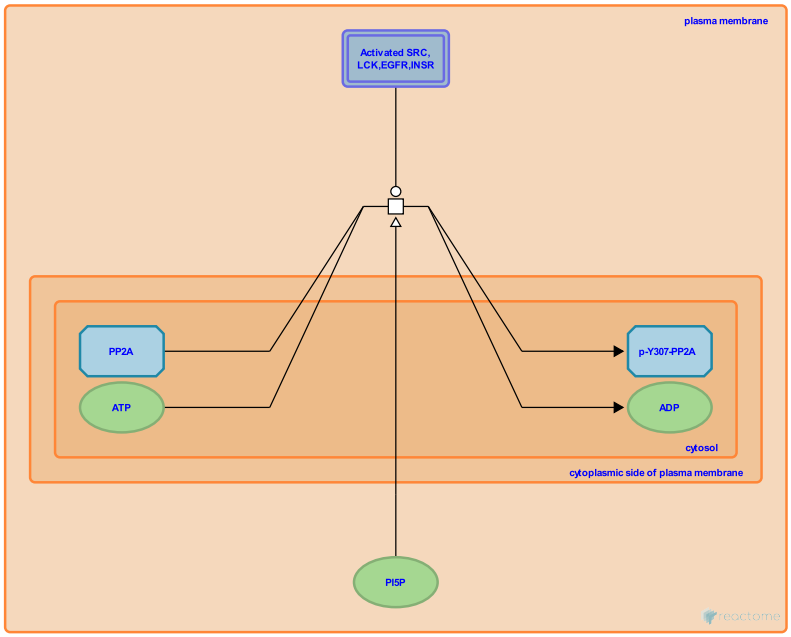
Stable identifier: R-HSA-8857925

Type: transition

Compartments: cytosol, plasma membrane



SRC family tyrosine kinases, such as SRC and LCK, as well as receptor tyrosine kinases, such as EGFR and insulin receptor, can phosphorylate the catalytic subunit of serine/threonine protein phosphatase PP2A at tyrosine residue Y307. Phosphorylation at Y307 inhibits the catalytic activity of PP2A. Phosphatidylinositol-5-phosphate (PI5P) positively regulates phosphorylation of the catalytic subunit of PP2A at Y307.

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Editions

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