

# AKT1 dephosphorylation by PP2A-B56- beta,gamma

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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

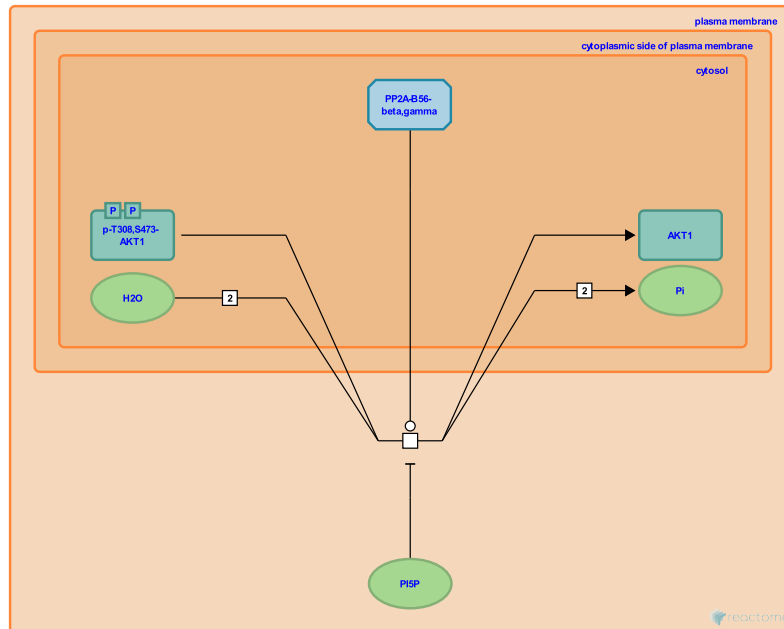
This document contains 1 reaction ([see Table of Contents](#))

## AKT1 dephosphorylation by PP2A-B56-beta,gamma ↗

**Stable identifier:** R-HSA-6811504

**Type:** transition

**Compartments:** cytosol, plasma membrane



The protein phosphatase 2A (PP2A) complex containing a regulatory subunit B56 beta (PPP2R5B) or B56 gamma (PPP2R5C) dephosphorylates activated AKT1 on threonine residue T308 and serine residue S473, thus halting PI3K/AKT signaling (Rocher et al. 2007). Phosphatidylinositol-5-phosphate (PI5P) negatively regulates PP2A-mediated dephosphorylation of AKT1 by promoting, through an unknown mechanism, an inhibitory phosphorylation on tyrosine residue Y307 (Chen et al. 1992) of the catalytic subunit of PP2A (Ramel et al. 2009).

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### Editions

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