

AKT phosphorylates GSK3

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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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- Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 70

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

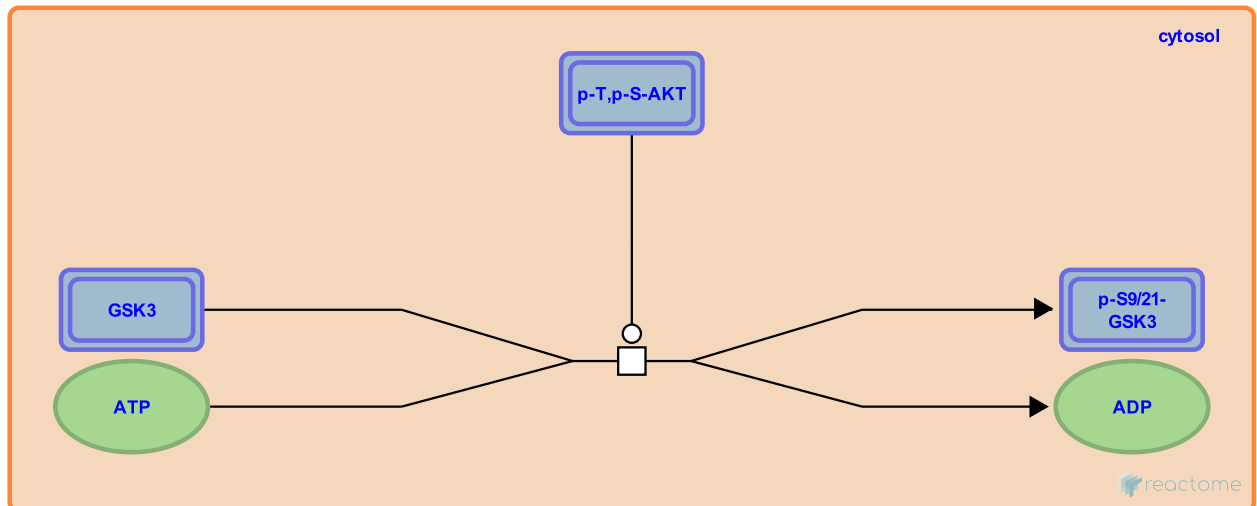
AKT phosphorylates GSK3 [↗](#)

Stable identifier: R-HSA-198371

Type: transition

Compartments: cytosol

Inferred from: [Akt1 phosphorylates GSK3 \(Rattus norvegicus\)](#)



GSK3 (glycogen synthase kinase-3) participates in the Wnt signaling pathway. It is implicated in the hormonal control of several regulatory proteins including glycogen synthase, and the transcription factors MYB and JUN. GSK3 phosphorylates JUN at sites proximal to its DNA-binding domain, thereby reducing its affinity for DNA. GSK3 is inhibited when phosphorylated by AKT1.

Editions

2006-10-10

Authored

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Reviewed

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