GSK3 phosphorylates Nucleoprotein

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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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

**Literature references**


Reactome database release: 77

This document contains 1 reaction (see Table of Contents)

https://reactome.org
GSK3 phosphorylates Nucleoprotein

Stable identifier: R-HSA-9683664

Type: transition

Compartments: cytosol

Diseases: severe acute respiratory syndrome

The majority of nucleocapsid protein (N) is serine-phosphorylated in the cytosol and, possibly, in the nucleus where it gets immediately transported to the cytosol. Phosphorylation is catalyzed by glycogen synthase kinase 3 (GSK3A and GSK3B) and several other host cell kinases (Surjit et al, 2005; Wu et al. 2009). GSK3-mediated phosphorylation of the N protein is needed for efficient replication of viral genomic RNA (Wu et al. 2009).

Literature references


Editions

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<td>Authored</td>
<td>Stephan, R.</td>
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<tr>
<td>2020-05-21</td>
<td>Edited</td>
<td>D'Eustachio, P.</td>
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