

p-Y701-STAT1:p-Y705-STAT3 translocates from the cytosol to the nucleus

Duenas, C., Jassal, B., Limon, PL., Meldal, BH.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

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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

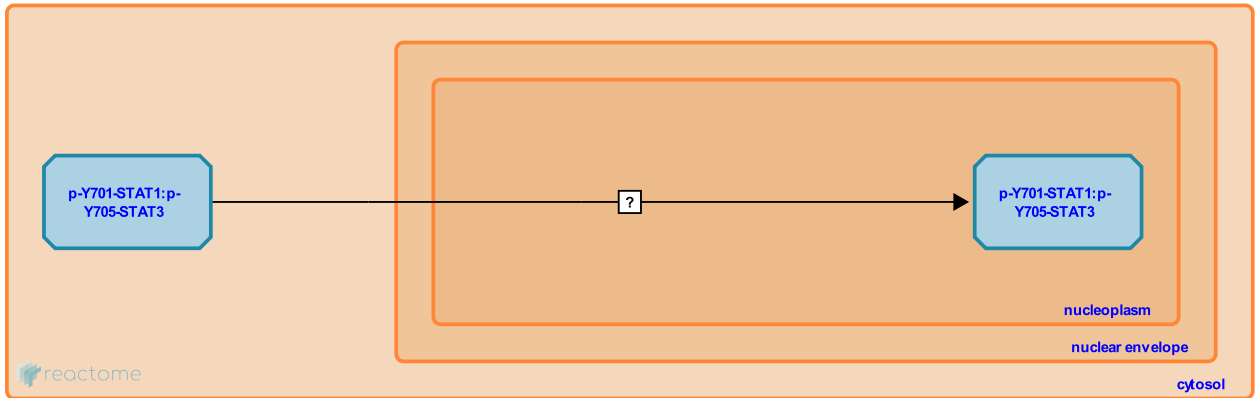
This document contains 1 reaction ([see Table of Contents](#))

p-Y701-STAT1:p-Y705-STAT3 translocates from the cytosol to the nucleus [↗](#)

Stable identifier: R-HSA-8985981

Type: uncertain

Compartments: cytosol, nucleoplasm



The Signal transducer and activator of transcription 1-alpha/beta (STAT1) -Signal transducer and activator of transcription 3 (STAT3) complex translocates from the cytosol to the nucleus. Interleukin-9 (IL9) stimulation induces STAT3 nuclear translocation and binding in vivo to the Eotaxin (CCL11) promoter (Yamasaki et al. 2010, Gounni et al. 2004). Interleukin-9 (IL9) stimulation induces mucin5AC, junB and c-myc transcription (Longphre et al. 1999, Kang et al, 1995).

This is a black box event because this evidence shows STAT3 translocation, but not translocation of a STAT1:STAT3 dimer.

Literature references

Basbaum, C., Wenzel, S., Li, D., Bice, DE., Drori, E., Longphre, M. et al. (1999). Allergen-induced IL-9 directly stimulates mucin transcription in respiratory epithelial cells. *J. Clin. Invest.*, 104, 1375-82. [↗](#)

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Editions

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