JAK1,JAK2 bound to IL27RA:IL12RB2 receptor phosphorylate STAT1,STAT3

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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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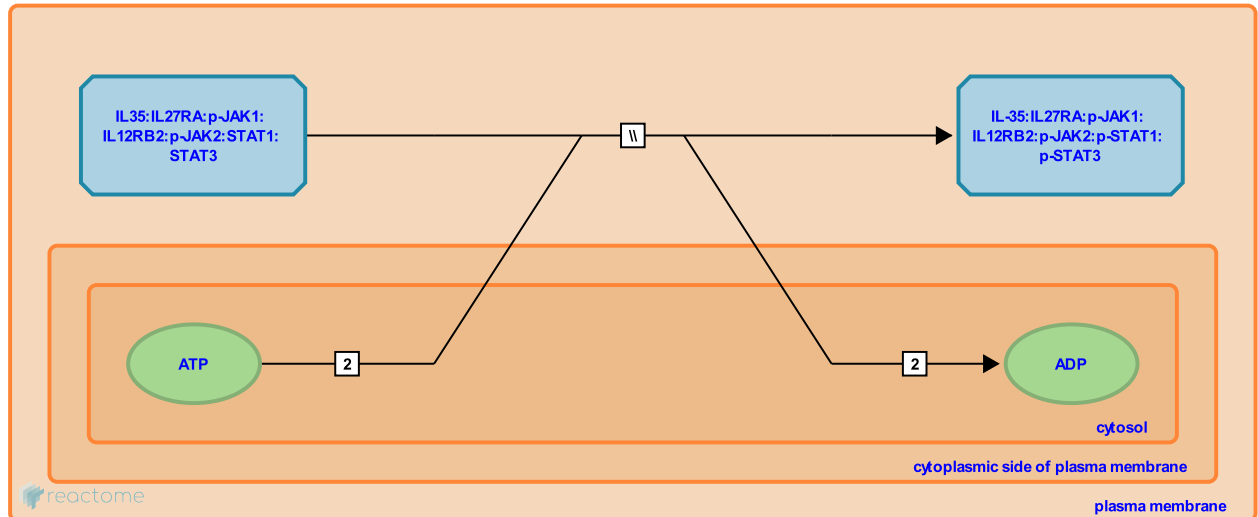
Reactome database release: 88

This document contains 1 reaction (see Table of Contents)

JAK1,JAK2 bound to IL27RA:IL12RB2 receptor phosphorylate STAT1,STAT3 ↗

Stable identifier: R-HSA-8984014

Type: omitted

Compartments: plasma membrane, cytosol, extracellular region

Interleukin 35 (IL35) binding activates the IL35 receptor complex and may presumably facilitate Tyrosine protein kinase JAK (JAK) phosphorylation. Subsequently, Signal transducer and activator of transcription 1 alpha/beta (STAT1) and Signal transducer and activator of transcription 3 alpha/beta (STAT3) may bind to the receptor complex and are activated by tyrosine phosphorylation. Although it is known that JAKs are involved in STATs phosphorylation (Stark GR and Darnell JE, 2012), it is not clear how other components of the IL35 receptor complex contribute to STAT1/STAT3 phosphorylation. For this reason, this event is assigned a black box status.

Literature references

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Editions

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