

# JAK1,JAK2 bound to IL27RA:IL12RB2 receptor are phosphorylated

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06/05/2024

## 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

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Reactome database release: 88

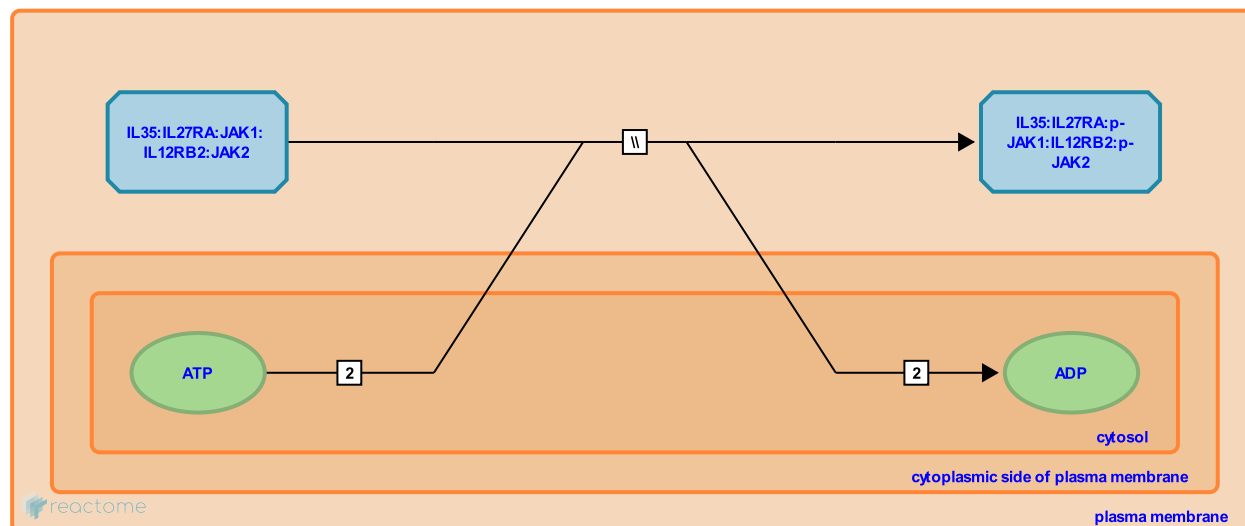
This document contains 1 reaction ([see Table of Contents](#))

## JAK1,JAK2 bound to IL27RA:IL12RB2 receptor are phosphorylated ↗

**Stable identifier:** R-HSA-8984012

**Type:** omitted

**Compartments:** plasma membrane, cytosol, extracellular region



Interleukin 35 (IL35) presumably signal via a complex that includes Interleukin 27 receptor subunit alpha (IL27RA), Interleukin 12 receptor subunit beta 2 (IL12RB2) and the associated Tyrosine protein kinase JAK1 (JAK1) and JAK2 (Wang et al. 2014). Downstream, these JAKs are believed to phosphorylate Signal transducer and activator of transcription 1 (STAT1) and STAT3 (Stark GR and Darnell JE, 2012). As the series of events that induces JAK/STAT phosphorylation events in response to IL35 are not clear, this event is represented as a black box.

### Literature references

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### Editions

2016-12-15	Authored, Edited	Varusai, TM.
2017-07-05	Reviewed	Singh, K.
2017-08-09	Reviewed	Pylayeva-Gupta, Y.