

# IL21 receptor JAK phosphorylation

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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

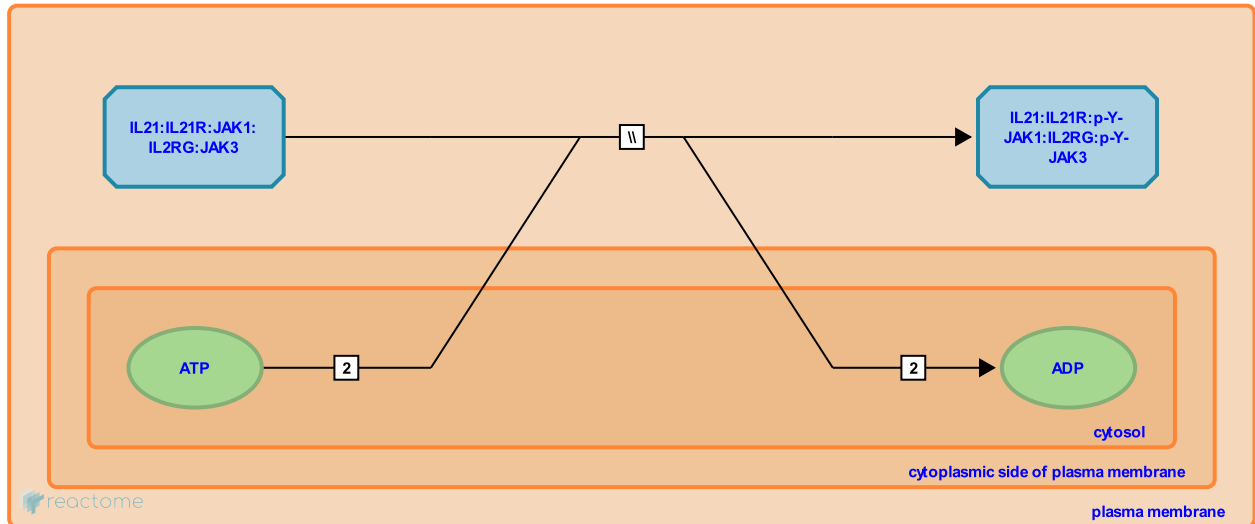
This document contains 1 reaction ([see Table of Contents](#))

## IL21 receptor JAK phosphorylation ↗

**Stable identifier:** R-HSA-9006850

**Type:** omitted

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



The IL21 heteromeric receptor complex can activate JAK1 and JAK3 in response to Interleukin-21 (IL21), leading to JAK tyrosine phosphorylation (Asao et al. 2001, Habib et al. 2002).

This is a black box event because the mechanism leading to JAK phosphorylation is not established for this receptor complex.

### Literature references

Weinberg, K., Senadheera, S., Kaushansky, K., Habib, T. (2002). The common gamma chain (gamma c) is a required signaling component of the IL-21 receptor and supports IL-21-induced cell proliferation via JAK3. *Biochemistry*, 41, 8725-31. ↗

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### Editions

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