# IL10 dimer binds IL10RA:JAK1

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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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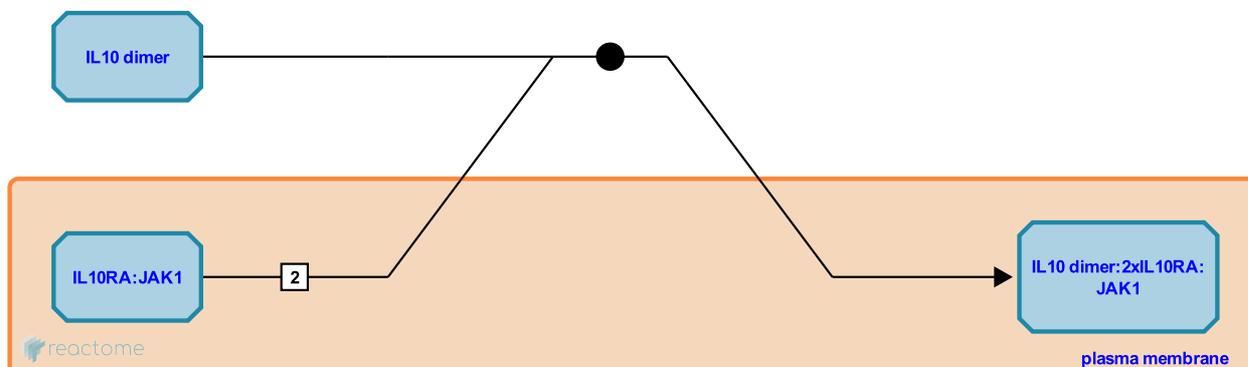
Reactome database release: 70

This document contains 1 reaction (see Table of Contents)

# IL10 dimer binds IL10RA:JAK1 ↗

**Stable identifier:** R-HSA-449803

**Type:** binding

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



The IL-10 receptor is composed of at least two subunits, both members of the interferon receptor (IFNR) family (Liu et al. 1994). Interferon-10 receptor alpha chain (IL10RA) is the ligand-binding subunit, binding IL-10 with high affinity (Kd 35-200 pM) (Tan et al. 1993). IL10RA is constitutively associated with JAK1 (Moore et al. 2001, Usacheva et al. 2002). This association is dependent on a membrane-proximal part of the receptor (amino acids 269-274) which contain a region designated the box 2B motif, characterized by a core of four hydrophobic residues flanked by a serine and charged residues (Usacheva et al. 2002).

## Literature references

Liu, Y., Wei, SH., Ho, AS., de Waal Malefyt, R., Moore, KW. (1994). Expression cloning and characterization of a human IL-10 receptor. *J Immunol, 152*, 1821-9. ↗

## Editions

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| 2015-06-17 | Authored | Jupe, S. |
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