EPO binds EPOR:JAK2:LYN:IRS2

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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
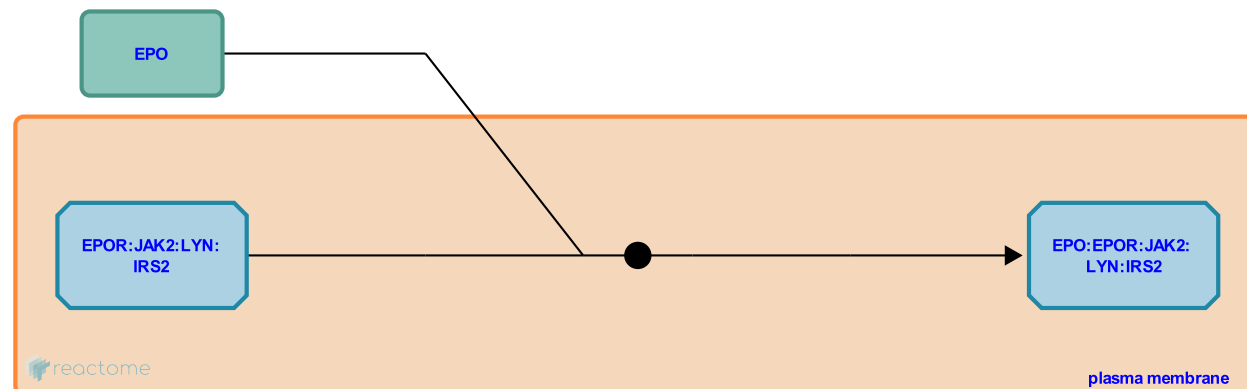
This document contains 1 reaction (see Table of Contents)

EPO binds EPOR:JAK2:LYN:IRS2 ↗

Stable identifier: R-HSA-9006325

Type: binding

Compartments: plasma membrane

Inferred from: Epo binds Epor:Jak2:Lyn:Irs2 (Mus musculus)

Extracellular Erythropoietin (EPO) binds the EPO receptor (EPOR) located in the plasma membrane of the target cell (Jones et al. 1990, Syed et al. 1998, Remy et al. 1999, and inferred from mouse homologs). EPOR is a dimer that appears to be preassociated with downstream signaling proteins JAK2 (inferred from mouse homologs) and LYN (Chin et al. 1998, and inferred from mouse homologs) and the scaffold protein IRS2 (Verdier et al. 1997). Binding of EPO to EPOR causes a change in the conformation of the dimer which activates JAK2 (Syed et al. 1998, Remy et al. 1999, Kubatzky et al. 2001).

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Editions

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