p-Y-JAK1,2 phosphorylates STAT1,3,5 in CSF3 dimer:2xp-4Y-CSF3R:LYN:p-Y-JAK1:p-Y-JAK2:p-TYK2

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04/05/2024

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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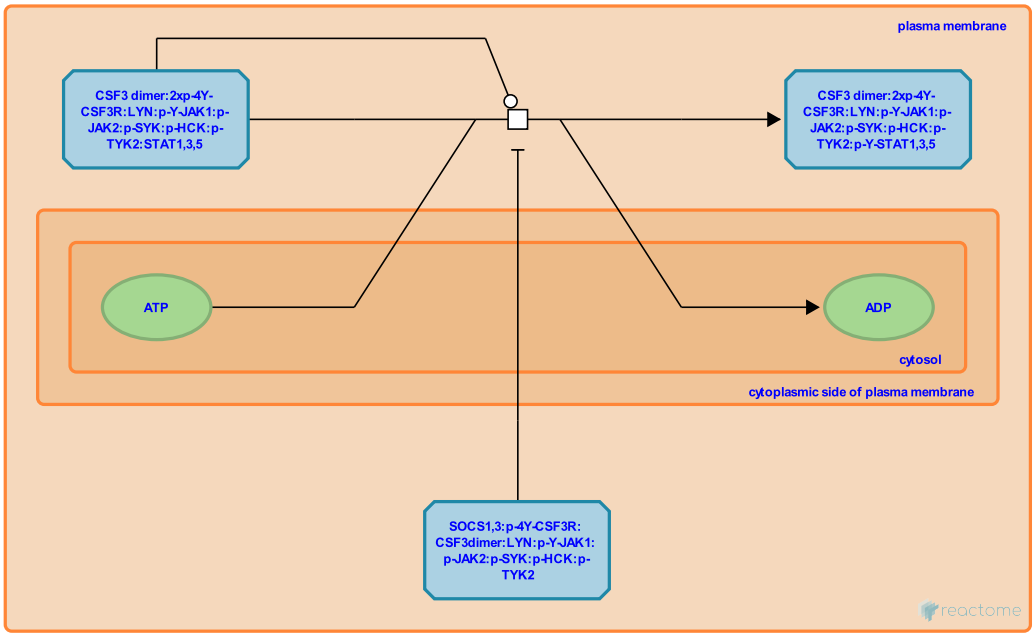
Stable identifier: R-HSA-9674567

Type: transition

Compartments: plasma membrane

Inferred from: p-Y-Jak1,2 phosphorylates Stat1,3,5 in Csf3 dimer:2xp-4Y-Csf3r:Lyn:p-Y-Jak1:p-Jak2:p-Tyk2:Stat1,3,5 (Mus musculus)



Phosphorylated JAK1 (p-Y-JAK1) phosphorylates the STAT proteins STAT1 (Tian et al. 1994, Tian et al. 1996, Shimoda et al. 1997, also inferred from mouse homologs), STAT3 (Tian et al. 1994, Tian et al. 1996, Shimoda et al. 1997, Ward et al. 1999, Marino and Roguin 2008, Kumar et al. 2014, also inferred from mouse homologs), and STAT5 (Tian et al. 1994, Tian et al. 1996, Shimoda et al. 1997, also inferred from mouse homologs) at the cytosolic domain of CSF3R (G-CSFR). Phosphorylated JAK2 acts redundantly with p-Y-JAK1 to phosphorylate STAT proteins (Kumar et al. 2014, also inferred from mouse homologs).

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Editions

2020-01-13	Authored, Edited	May, B.
2020-12-12	Reviewed	Touw, IP.