

GM-CSF receptor alpha subunit binds GM-CSF

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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

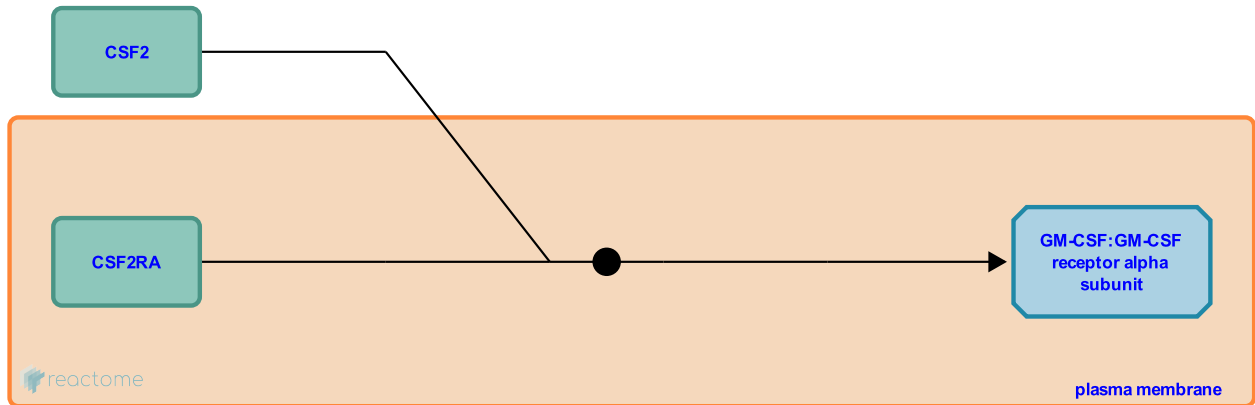
This document contains 1 reaction ([see Table of Contents](#))

GM-CSF receptor alpha subunit binds GM-CSF [↗](#)

Stable identifier: R-HSA-913360

Type: binding

Compartments: extracellular region, plasma membrane



The GM-CSF receptor alpha subunit has a single transmembrane domain, a glycosylated extracellular domain and a short (54 amino acids) cytoplasmic tail, containing no tyrosine kinase domain (Gearing et al. 1989). It binds GM-CSF with a relatively low affinity, and is not capable of signaling. The cytoplasmic domain of the alpha chain appears to be critical for GM-CSF signaling (Matsuguchi et al. 1997).

Literature references

Nicola, NA., Gearing, DP., Gough, NM., King, JA. (1989). Expression cloning of a receptor for human granulocyte-macrophage colony-stimulating factor. *EMBO J*, 8, 3667-76. [↗](#)

Editions

2010-05-17	Authored	Ray, KP.
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