JAK1,JAK2 bound to IL27RA:IL12RB2 receptor are phosphorylated

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics, 18*, 142. ↗

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Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

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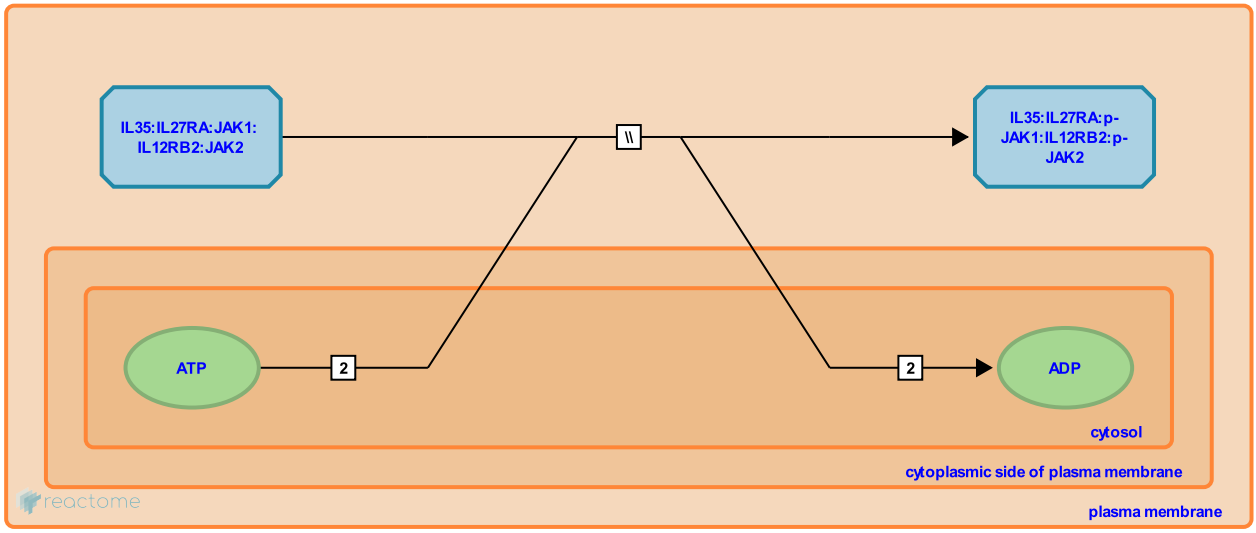
Stable identifier: R-HSA-8984012

Type: omitted

Compartments: plasma membrane, cytosol, extracellular region



Interleukin 35 (IL35) presumably signal via a complex that includes Interleukin 27 receptor subunit alpha (Il27RA), Interleukin 12 receptor subunit beta 2 (IL12RB2) and the associated Tyrosine protein kinase JAK1 (JAK1) and JAK2 (Wang et al. 2014). Downstream, these JAKs are believed to phosphorylate Signal transducer and activator of transcription 1 (STAT1) and STAT3 (Stark GR and Darnell JE, 2012). As the series of events that induces JAK/STAT phosphorylation events in response to IL35 are not clear, this event is represented as a black box.

Literature references

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