

STAT3 is phosphorylated by TSLP:IL7R:CRLF2:STAT3 complex

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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. [↗](#)

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467. [↗](#)

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Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 88

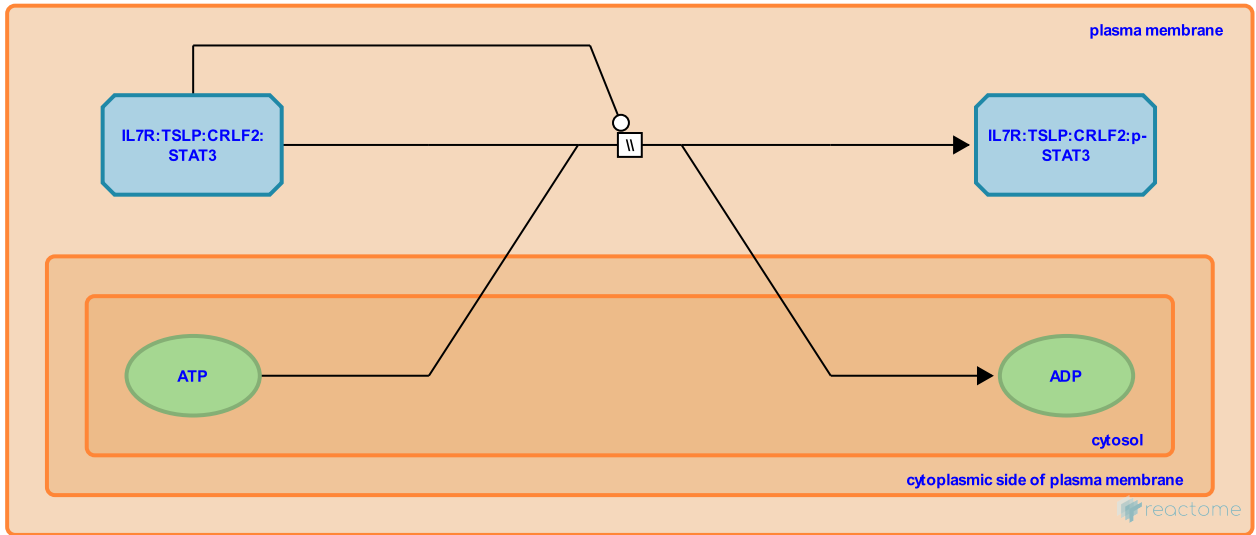
This document contains 1 reaction ([see Table of Contents](#))

STAT3 is phosphorylated by TSLP:IL7R:CRLF2:STAT3 complex

Stable identifier: R-HSA-8983059

Type: omitted

Compartments: plasma membrane, cytosol, extracellular region



Inferred from mouse:
Following binding of TSLP to Cytokine receptor-like factor 2 (CRLF2, TSLPR) and Interleukin-7 receptor subunit alpha (IL7R), Signal transducer and activator of transcription 5A and 5B (STAT5A and STAT5B) and Signal transducer and activator of transcription 3 (STAT3) were phosphorylated in various Ba/F3 cell populations (Reche et al. 2001).
This is a black box event since the kinase responsible for STAT phosphorylation is unknown.

Literature references

Bazan, JF., Johnston, J., Zurawski, SM., de Waal Malefyt, R., Gorman, DM., Liu, MR. et al. (2001). Human thymic stromal lymphopoietin preferentially stimulates myeloid cells. *J. Immunol.*, 167, 336-43. [↗](#)

Editions

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