p-STAT1 binds p-STAT3

Duenas, C., van de Vosse, E.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

The contents of this document may be freely copied and distributed in any media, provided the authors, plus the institutions, are credited, as stated under the terms of Creative Commons Attribution 4.0 International (CC BY 4.0) License. For more information see our license.

23/12/2022
**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**


Reactome database release: 83

This document contains 1 reaction (see Table of Contents)

[https://reactome.org](https://reactome.org)
p-STAT1 binds p-STAT3

Stable identifier: R-HSA-8950782

Type: binding

Compartments: cytosol

Monocytes express the Interleukin-27 receptor and in response to Interleukin-27 induce Signal transducer and activator of transcription 1-alpha/beta (STAT1) and STAT3 phosphorylation (Pflanz et al. 2004).

Interleukin-27 can induce formation of STAT1/STAT3 heterodimers (Guzzo et al. 2010, Hirahara et al. 2015). Nuclear factor NF-kappa-B (NFkB) is activated by Interleukin-27 stimulation in response to STAT1/STAT3 activation and is essential for Interleukin-27 to activate the production of cytokines (Guzzo et al. 2010).

Literature references


Editions

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Author/Reviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-12-02</td>
<td>Authored</td>
<td>Duenas, C.</td>
</tr>
<tr>
<td>2017-05-11</td>
<td>Edited</td>
<td>Duenas, C.</td>
</tr>
<tr>
<td>2017-05-12</td>
<td>Reviewed</td>
<td>van de Vosse, E.</td>
</tr>
</tbody>
</table>