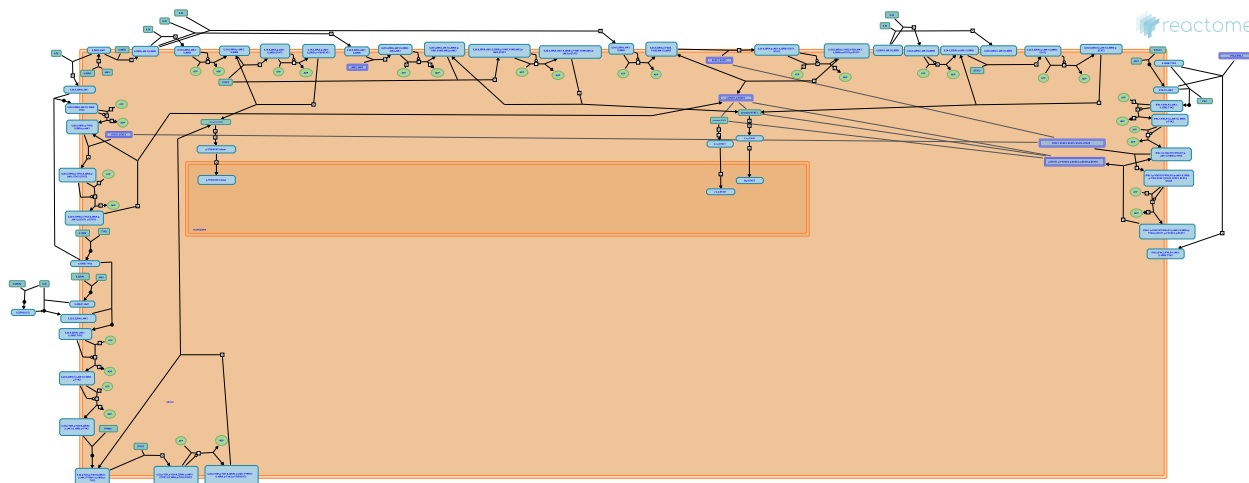


Interleukin-20 family signaling



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

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This is just an excerpt of a full-length report for this pathway. To access the complete report, please download it at the [Reactome Textbook](https://reactome.org/textbook/).

05/05/2024

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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- 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. [↗](#)

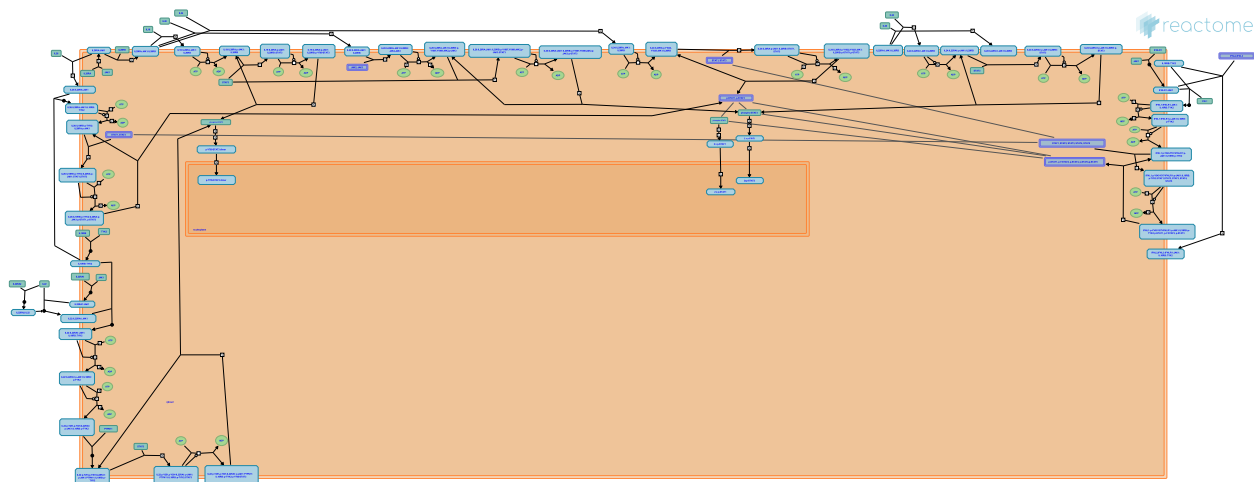
Reactome database release: 88

This document contains 1 pathway and 55 reactions ([see Table of Contents](#))

Interleukin-20 family signaling ↗

Stable identifier: R-BTA-8854691

Inferred from: [Interleukin-20 family signaling \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

JAK1 binds IL20RA ↗

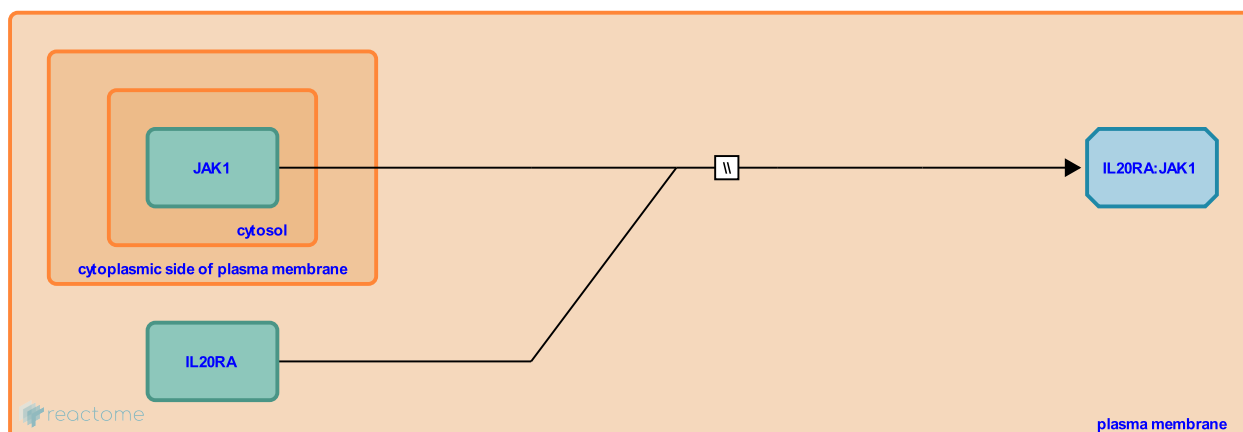
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987039

Type: omitted

Compartments: plasma membrane, cytosol

Inferred from: [JAK1 binds IL20RA \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Followed by: [IL26 binds IL20RA:JAK1](#), [IL20RA binds IL20RB](#)

IL20RA binds IL20RB ↗

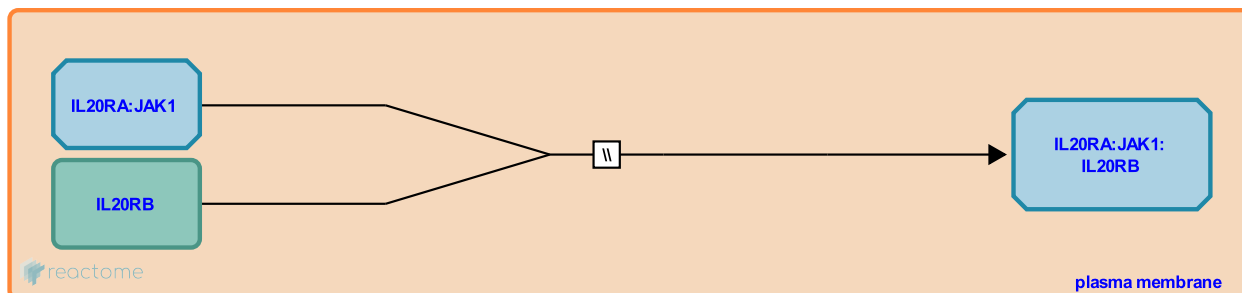
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-448744

Type: omitted

Compartments: plasma membrane, cytosol

Inferred from: [IL20RA binds IL20RB \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [JAK1 binds IL20RA](#)

Followed by: [IL20 binds IL20RA:JAK1:IL20RB](#), [IL24 binds IL20RA:JAK1:IL20RB](#), [IL19 binds IL20RA:JAK1:IL20RB](#)

IL19 binds IL20RA:JAK1:IL20RB ↗

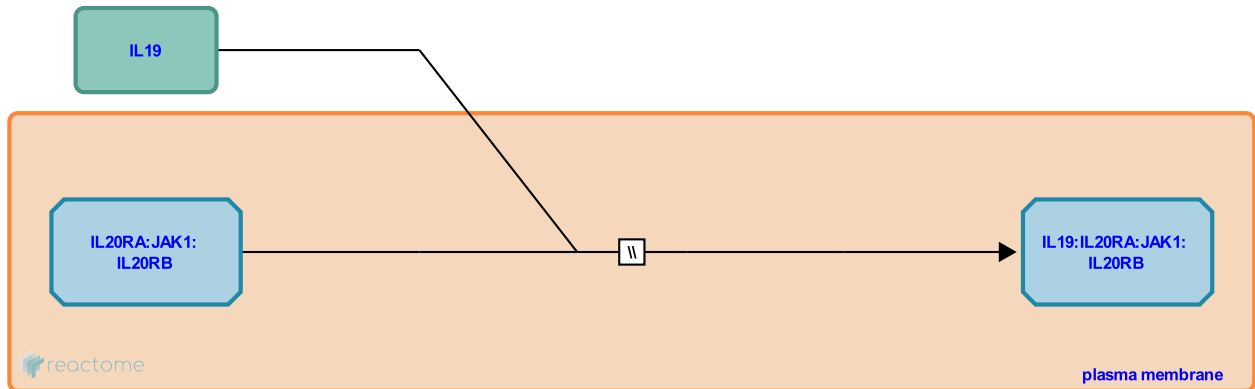
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-448728

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL19 binds IL20RA:JAK1:IL20RB \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20RA binds IL20RB](#)

Followed by: [IL19:IL20RA:JAK1:IL20RB phosphorylates JAK1](#)

IL19:IL20RA:JAK1:IL20RB phosphorylates JAK1 ↗

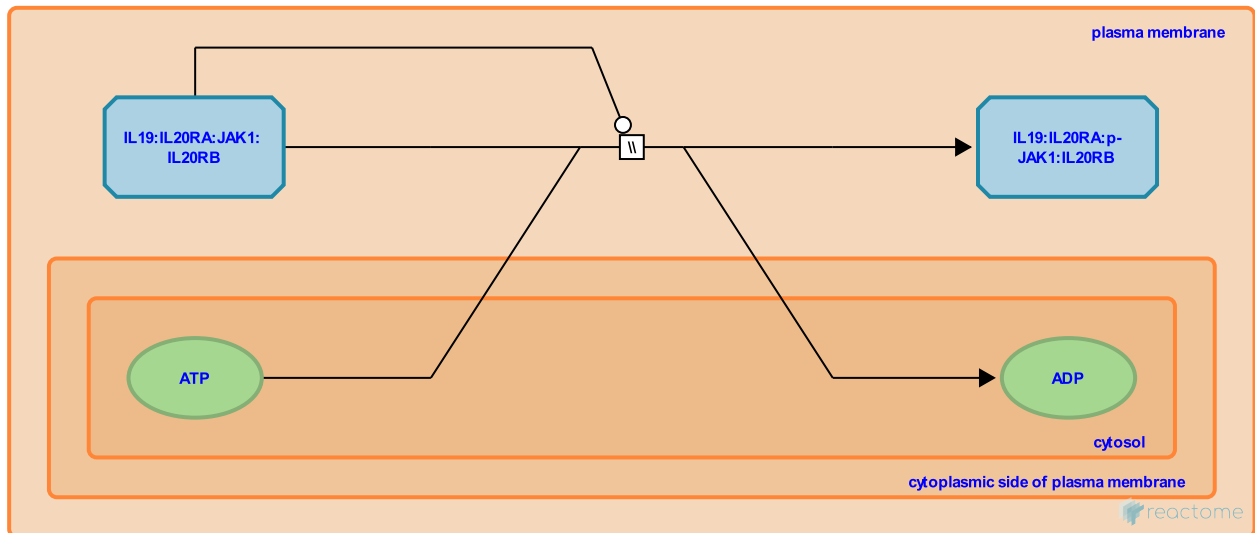
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987084

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL19:IL20RA:JAK1:IL20RB phosphorylates JAK1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL19 binds IL20RA:JAK1:IL20RB](#)

Followed by: [IL19:IL20RA:p-JAK1:IL20RB binds STAT3](#)

IL19:IL20RA:pJAK1:IL20RB binds STAT3 ↗

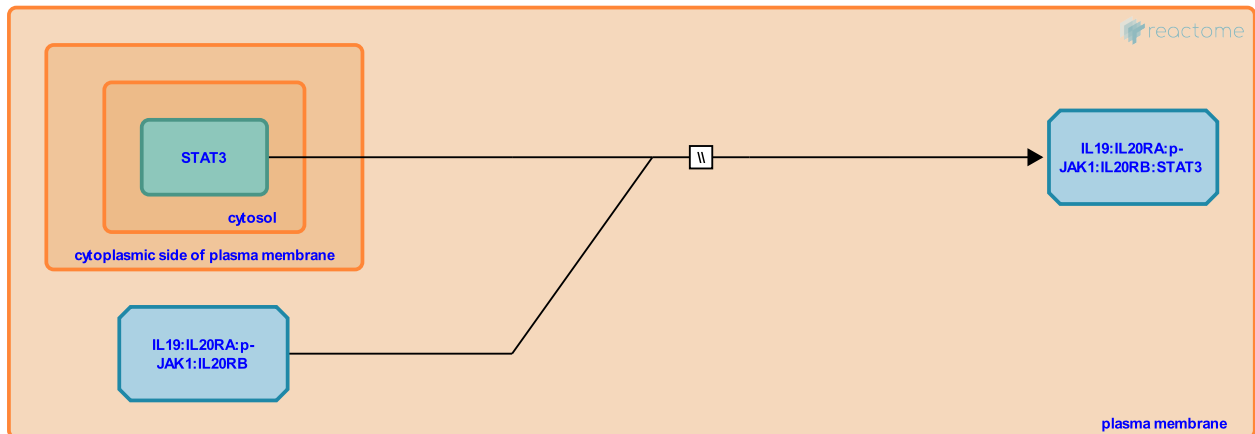
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8982165

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL19:IL20RA:pJAK1:IL20RB binds STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL19:IL20RA:JAK1:IL20RB phosphorylates JAK1](#)

Followed by: [IL19:IL20RA:p-JAK1:IL20RB:STAT3 phosphorylates STAT3](#)

IL19:IL20RA:p-JAK1:IL20RB:STAT3 phosphorylates STAT3 ↗

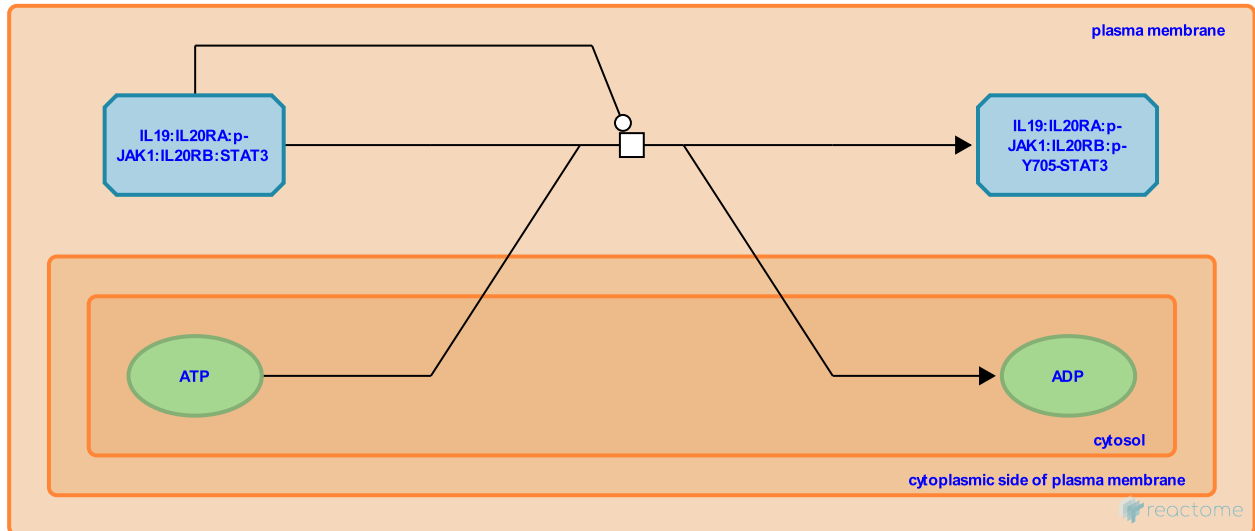
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8982163

Type: transition

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL19:IL20RA:p-JAK1:IL20RB:STAT3 phosphorylates STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL19:IL20RA:p-JAK1:IL20RB binds STAT3](#)

Followed by: [p-Y705-STAT3 dissociates from IL19:IL20RA:p-JAK1:IL20RB](#)

pY705-STAT3 dissociates from IL19:IL20RA:p-JAK1:IL20RB ↗

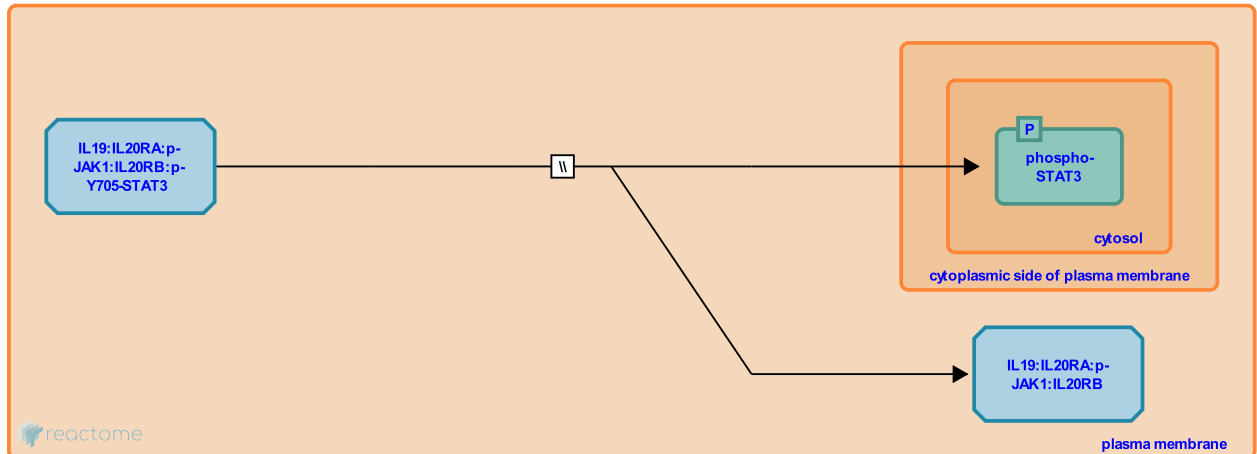
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8982162

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [pY705-STAT3 dissociates from IL19:IL20RA:p-JAK1:IL20RB \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL19:IL20RA:p-JAK1:IL20RB:STAT3 phosphorylates STAT3](#)

Followed by: [p-Y705-STAT3 dimerizes](#)

p-Y705-STAT3 dimerizes ↗

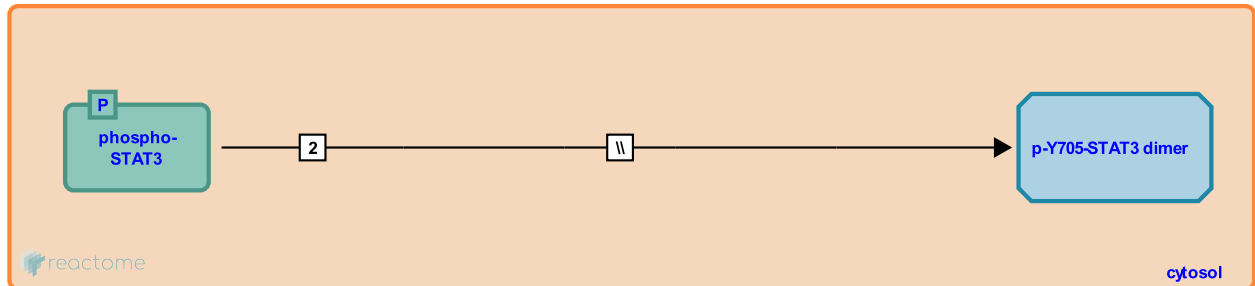
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-6784765

Type: omitted

Compartments: cytosol

Inferred from: [p-Y705-STAT3 dimerizes \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [p-Y705-STAT3 dissociates from IL19:IL20RA:p-JAK1:IL20RB](#), [p-Y705-STAT3 dissociates from IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:p-Y705-STAT3](#)

Followed by: [p-Y705-STAT3 dimer translocates from cytosol to nucleoplasm](#)

p-Y705-STAT3 dimer translocates from cytosol to nucleoplasm ↗

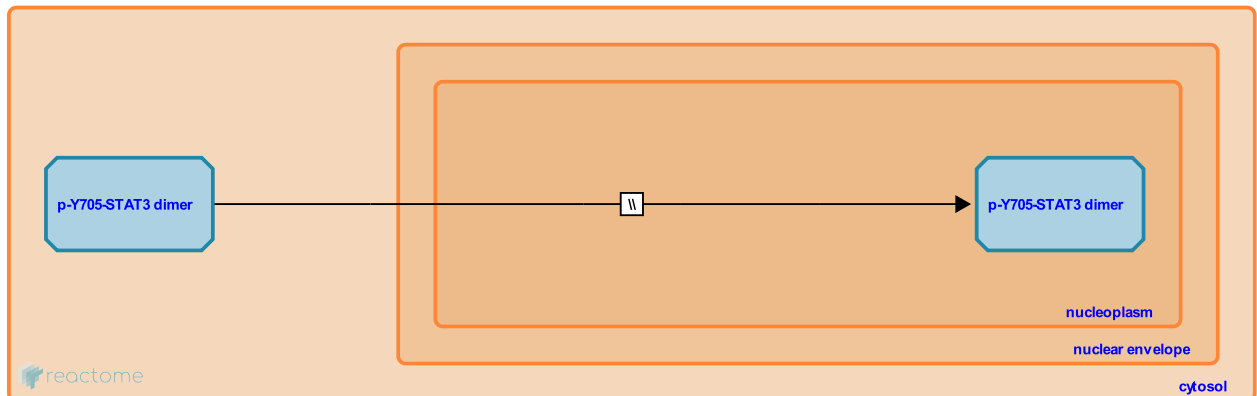
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-6784763

Type: omitted

Compartments: nucleoplasm, cytosol

Inferred from: [p-Y705-STAT3 dimer translocates from cytosol to nucleoplasm \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [p-Y705-STAT3 dimerizes](#)

IL20 binds IL20RA:JAK1:IL20RB ↗

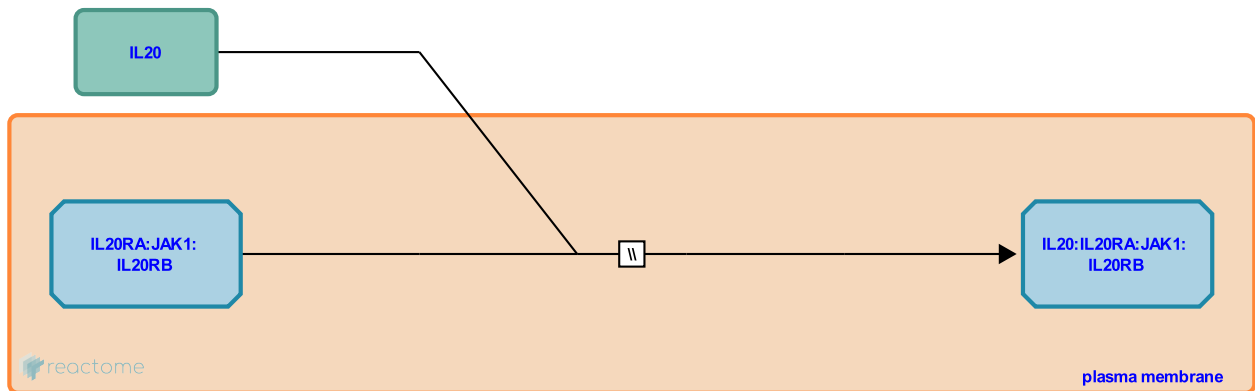
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987015

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL20 binds IL20RA:JAK1:IL20RB \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20RA binds IL20RB](#)

Followed by: [IL20:IL20RA:JAK1:IL20RB binds JAK2,JAK3](#)

IL20:IL20RA:JAK1:IL20RB binds JAK2,JAK3 ↗

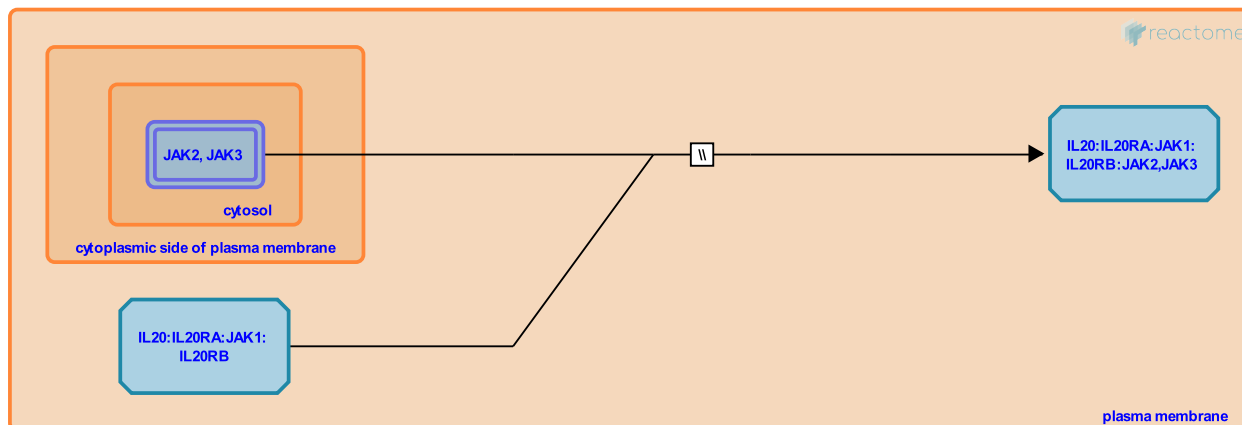
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987220

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL20:IL20RA:JAK1:IL20RB binds JAK2,JAK3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20 binds IL20RA:JAK1:IL20RB](#)

Followed by: [IL20:IL20RA:JAK1:IL20RB:JAK2,JAK3 phosphorylates JAK2,JAK3](#)

IL20:IL20RA:JAK1:IL20RB:JAK2,JAK3 phosphorylates JAK2,JAK3 ↗

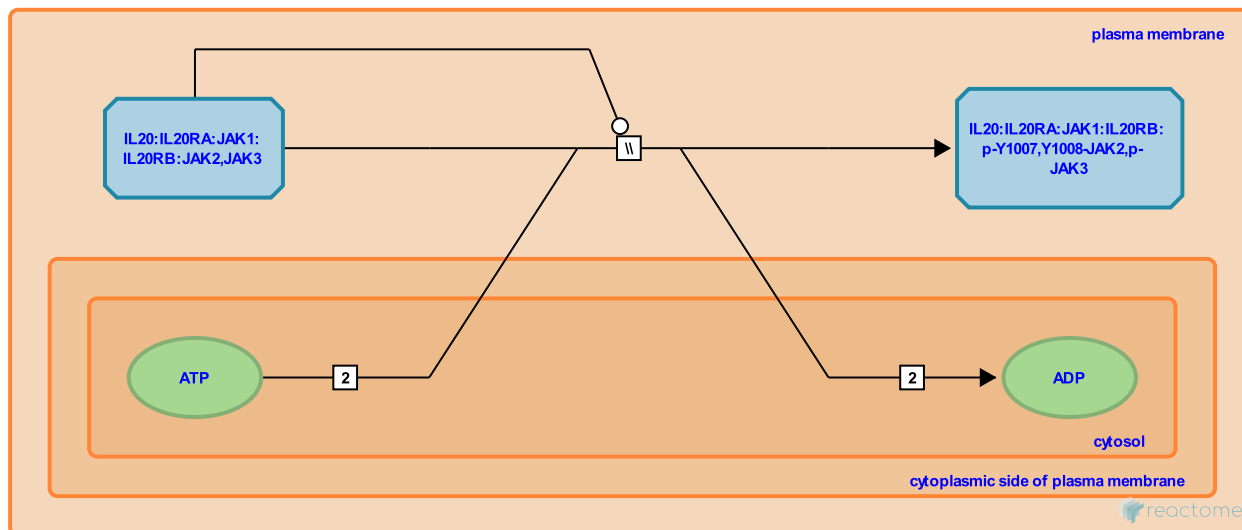
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987179

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL20:IL20RA:JAK1:IL20RB:JAK2,JAK3 phosphorylates JAK2,JAK3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20:IL20RA:JAK1:IL20RB binds JAK2,JAK3](#)

Followed by: [IL20:IL20RA:JAK1:IL20RB:p-JAK2,p-JAK3 binds STAT3](#)

IL20:IL20RA:JAK1:IL20RB:pJAK2,pJAK3 binds STAT3 ↗

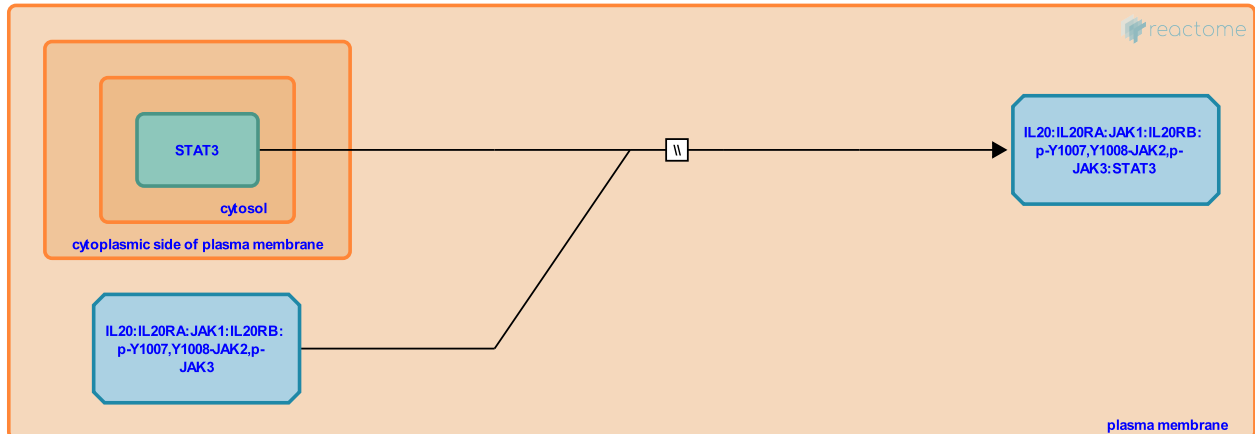
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987104

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL20:IL20RA:JAK1:IL20RB:pJAK2,pJAK3 binds STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20:IL20RA:JAK1:IL20RB:JAK2,JAK3 phosphorylates JAK2,JAK3](#)

Followed by: [IL20:IL20RA:JAK1:IL20RB:p-JAK3,p-JAK2:STAT3 phosphorylates STAT3](#)

IL20:IL20RA:JAK1:IL20RB:p-JAK3,p-JAK2:STAT3 phosphorylates STAT3 ↗

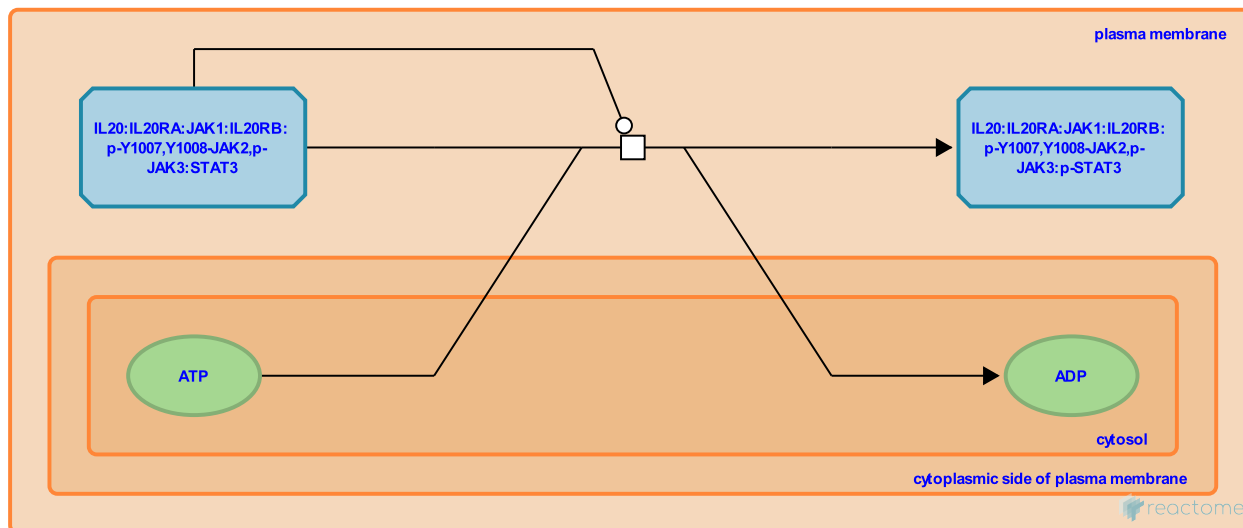
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987141

Type: transition

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL20:IL20RA:JAK1:IL20RB:p-JAK3,p-JAK2:STAT3 phosphorylates STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20:IL20RA:JAK1:IL20RB:p-JAK2,p-JAK3 binds STAT3](#)

Followed by: [p-STAT3 dissociates from IL20:IL20RA:JAK1:IL20RB:p-Y1007,Y1008-JAK2,p-JAK3](#)

p-STAT3 dissociates from IL20:IL20RA:JAK1:IL20RB:p-Y1007,Y1008-JAK2,p-JAK3 ↗

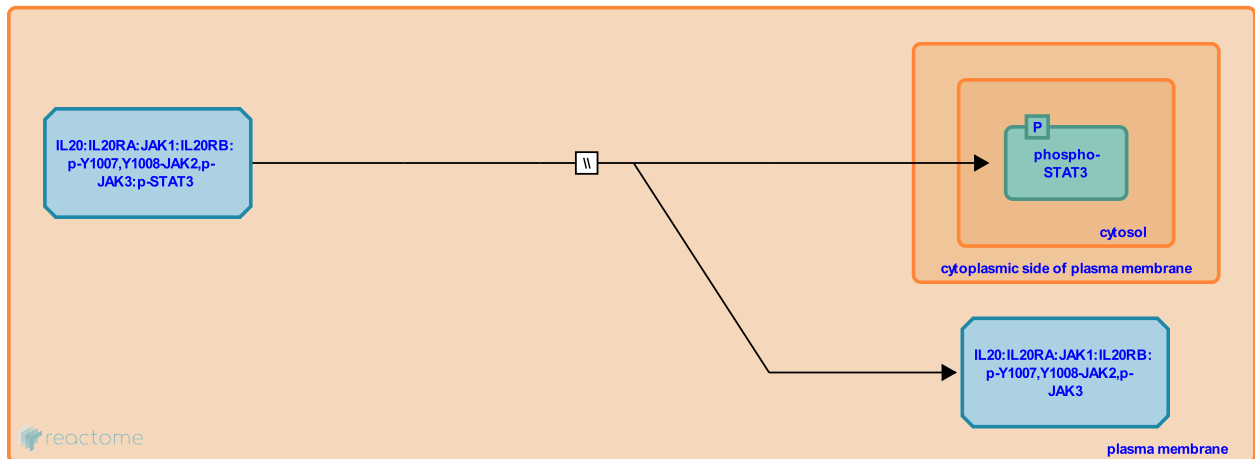
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987156

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [p-STAT3 dissociates from IL20:IL20RA:JAK1:IL20RB:p-Y1007,Y1008-JAK2,p-JAK3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20:IL20RA:JAK1:IL20RB:p-JAK3,p-JAK2:STAT3 phosphorylates STAT3](#)

Followed by: [p-STAT3 dimerizes](#)

IL24 binds IL20RA:JAK1:IL20RB ↗

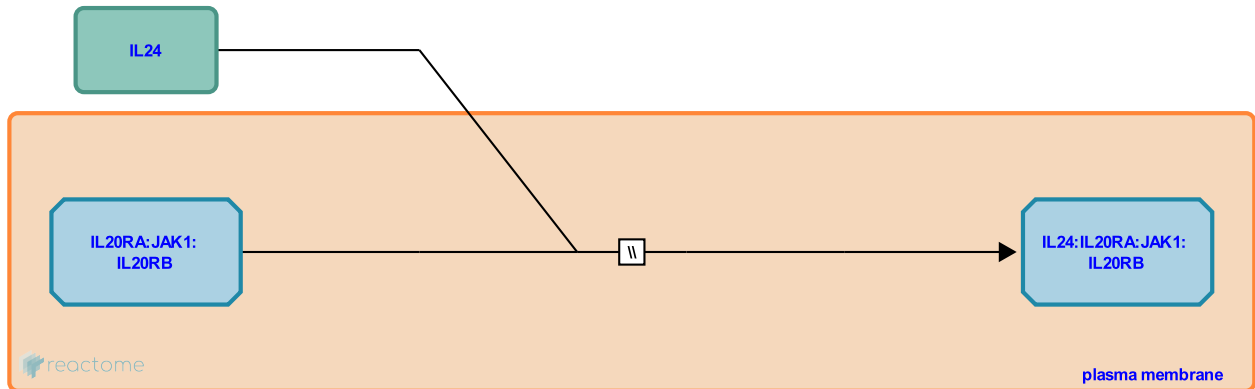
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8986972

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL24 binds IL20RA:JAK1:IL20RB \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL20RA binds IL20RB](#)

Followed by: [JAK1 in IL24:IL20RA:JAK1:IL20RB is phosphorylated](#)

JAK1 in IL24:IL20RA:JAK1:IL20RB is phosphorylated ↗

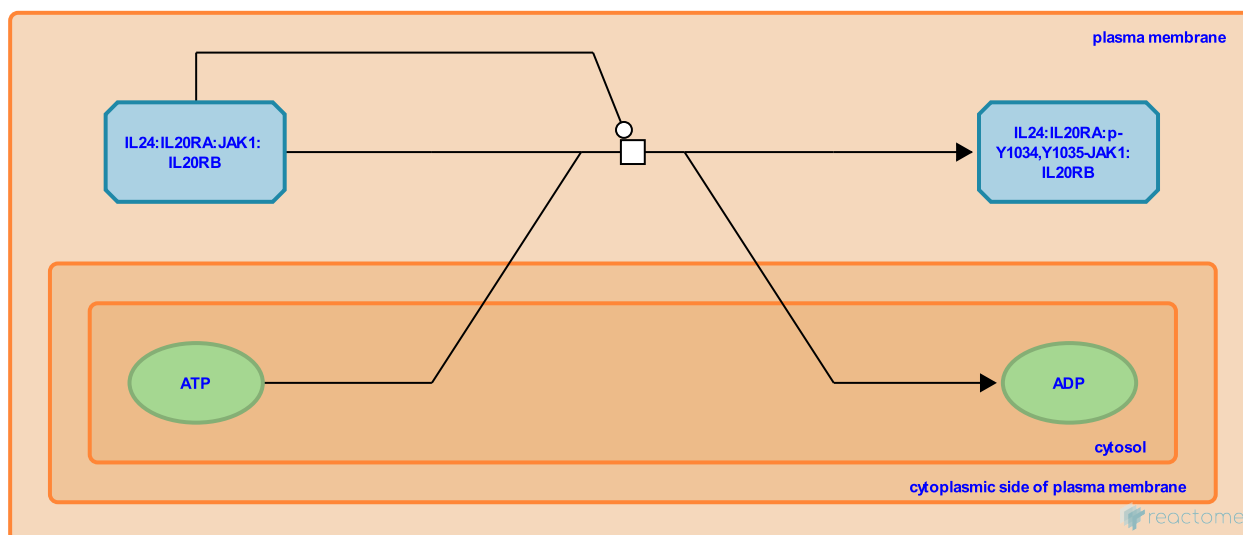
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987129

Type: transition

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [JAK1 in IL24:IL20RA:JAK1:IL20RB is phosphorylated \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL24 binds IL20RA:JAK1:IL20RB](#)

Followed by: [IL24:p-IL20RA:p-JAK1:IL20RB binds STAT1,STAT3](#)

IL24:p-IL20RA:p-JAK1:IL20RB binds STAT1,STAT3 ↗

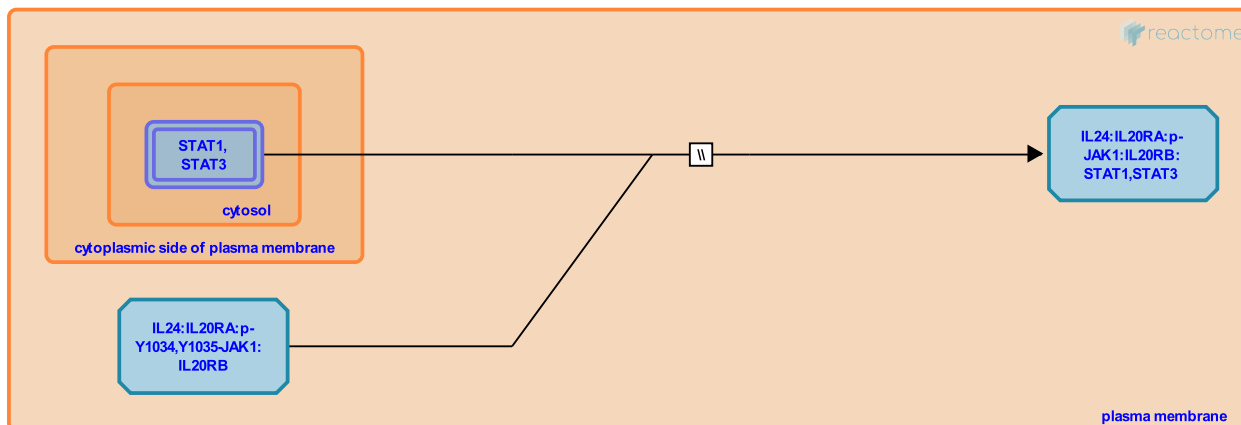
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987097

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL24:p-IL20RA:p-JAK1:IL20RB binds STAT1,STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [JAK1 in IL24:IL20RA:JAK1:IL20RB is phosphorylated](#)

Followed by: [IL24:IL20RA:p-JAK1:IL20RB:STAT1,STAT3 phosphorylates STAT1 or STAT3](#)

IL24:IL20RA:p-JAK1:IL20RB:STAT1,STAT3 phosphorylates STAT1 or STAT3 ↗

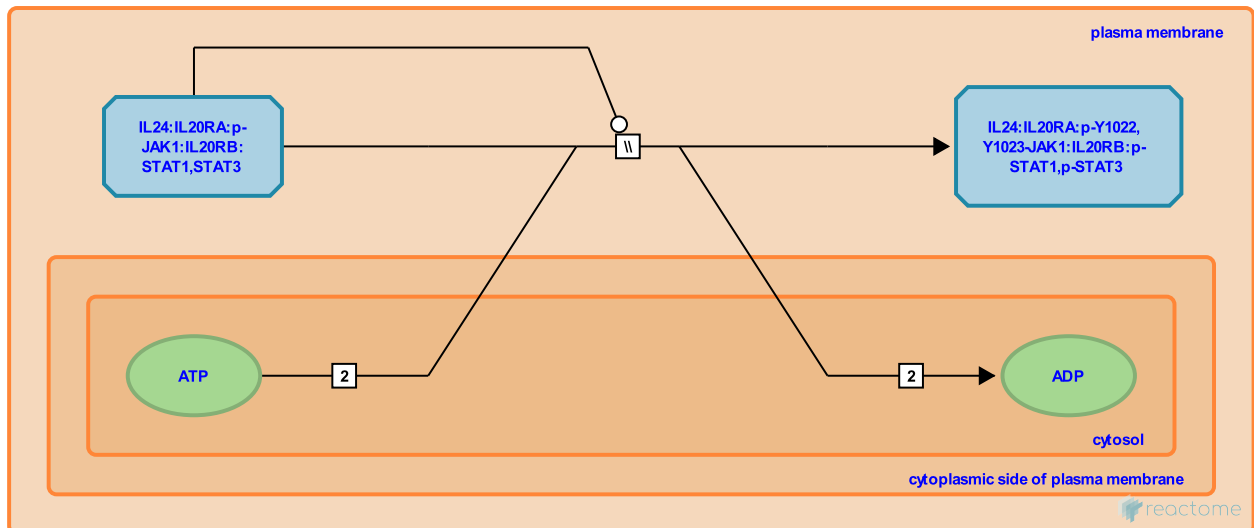
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987150

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL24:IL20RA:p-JAK1:IL20RB:STAT1,STAT3 phosphorylates STAT1 or STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL24:p-IL20RA:p-JAK1:IL20RB binds STAT1,STAT3](#)

Followed by: [p-STAT1,p-STAT3 dissociate from IL24:IL20RA:p-Y1022,Y1023-JAK1:IL20RB:p-STAT1, p-STAT3](#)

p-STAT1,p-STAT3 dissociate from IL24:IL20RA:p-Y1022,Y1023-JAK1:IL20RB:p-STAT1, p-STAT3 ↗

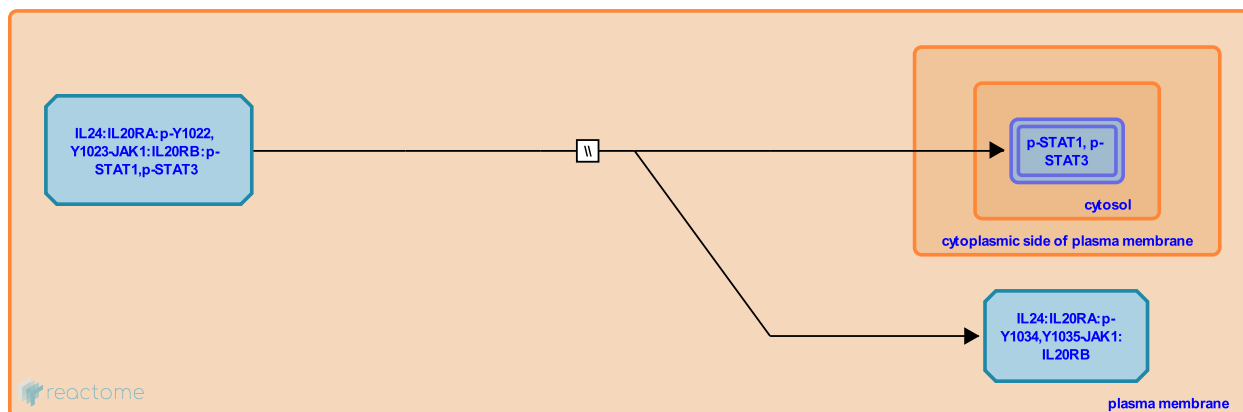
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987270

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [p-STAT1,p-STAT3 dissociate from IL24:IL20RA:p-Y1022,Y1023-JAK1:IL20RB:p-STAT1, p-STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL24:IL20RA:p-JAK1:IL20RB:STAT1,STAT3 phosphorylates STAT1 or STAT3](#)

Followed by: [p-STAT1 dimerizes, p-STAT3 dimerizes](#)

p-STAT3 dimerizes ↗

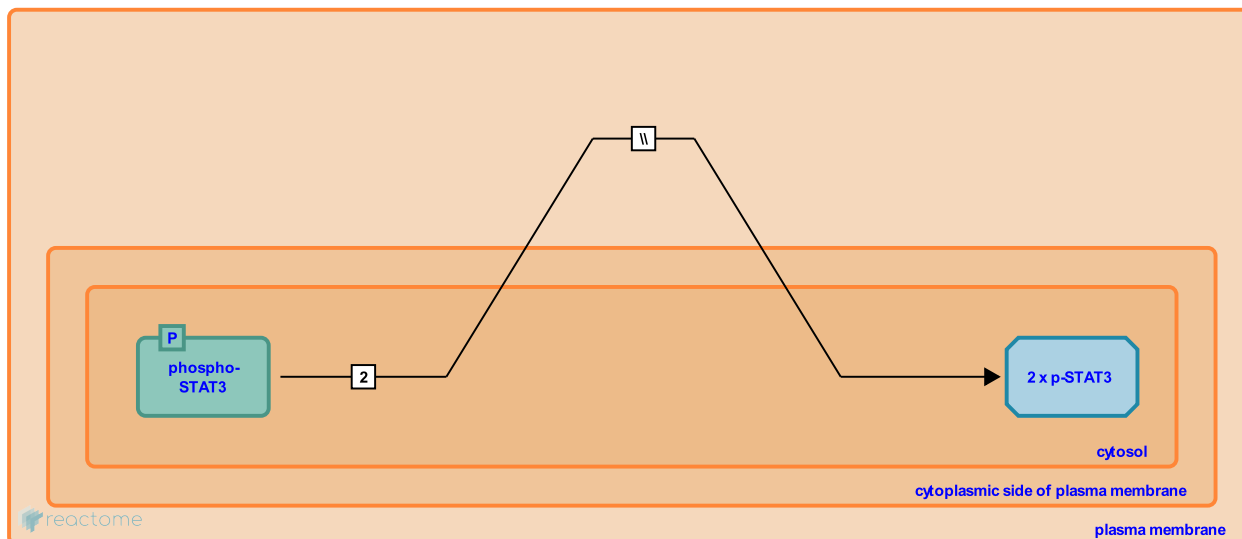
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987214

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [p-STAT3 dimerizes \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [p-STAT3 dissociates from IL20:IL20RA:JAK1:IL20RB:p-Y1007,Y1008-JAK2,p-JAK3](#), [p-STAT3 dissociates from IL24:IL22RA1:p-JAK1:IL20RB:p-STAT3](#), [p-STAT1,p-STAT3 dissociate from IL24:IL20RA:p-Y1022,Y1023-JAK1:IL20RB:p-STAT1](#), [p-STAT3](#), [p-STAT1](#), [p-Y-STAT2](#), [p-STAT3](#), [p-STAT4](#), [p-STAT5 dissociates from IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:p-STAT1,p-STAT2,p-STAT3,p-STAT4,p-STAT5](#), [p-STAT1](#) and [p-STAT3 dissociates from IL26:IL10RB:p-TYK2:IL20RA:p-JAK1](#)

Followed by: [p-STAT3 dimer translocates from cytosol to nucleoplasm](#)

p-STAT3 dimer translocates from cytosol to nucleoplasm ↗

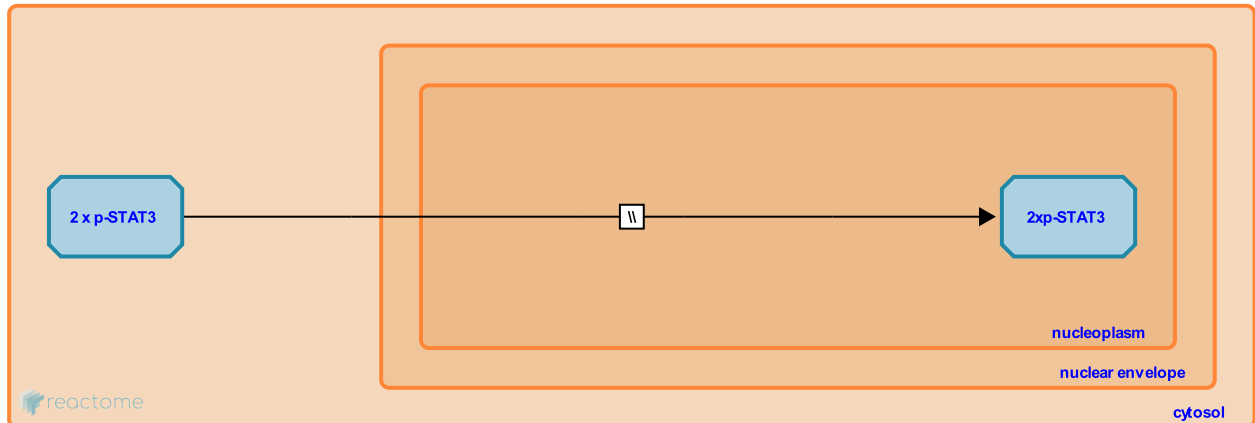
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987052

Type: omitted

Compartments: nucleoplasm, cytosol

Inferred from: [p-STAT3 dimer translocates from cytosol to nucleoplasm \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [p-STAT3 dimerizes](#)

p-STAT1 dimerizes ↗

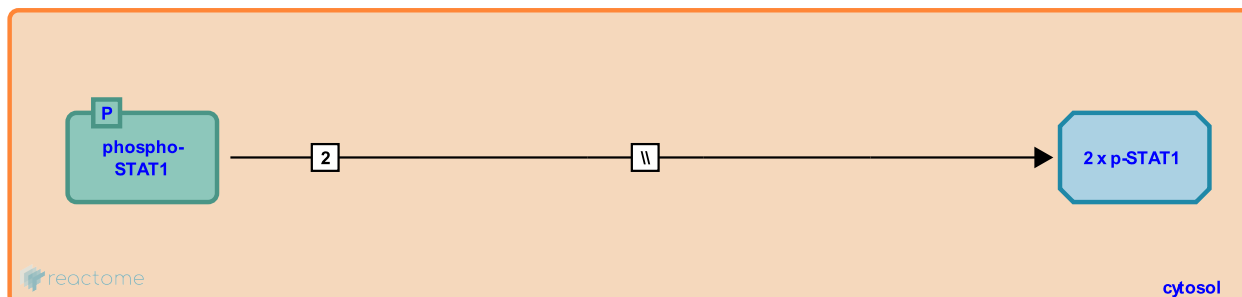
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987007

Type: omitted

Compartments: cytosol

Inferred from: [p-STAT1 dimerizes \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [p-STAT1,p-STAT3 dissociate from IL24:IL20RA:p-Y1022,Y1023-JAK1:IL20RB:p-STAT1, p-STAT3, p-STAT1, p-Y-STAT2, p-STAT3, p-STAT4, p-STAT5 dissociates from IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:p-STAT1,p-STAT2,p-STAT3,p-STAT4,p-STAT5, p-STAT1 and p-STAT3 dissociates from IL26:IL10RB:p-TYK2:IL20RA:p-JAK1](#)

Followed by: [p-STAT1 dimer translocates from the cytosol to the nucleoplasm](#)

p-STAT1 dimer translocates from the cytosol to the nucleoplasm ↗

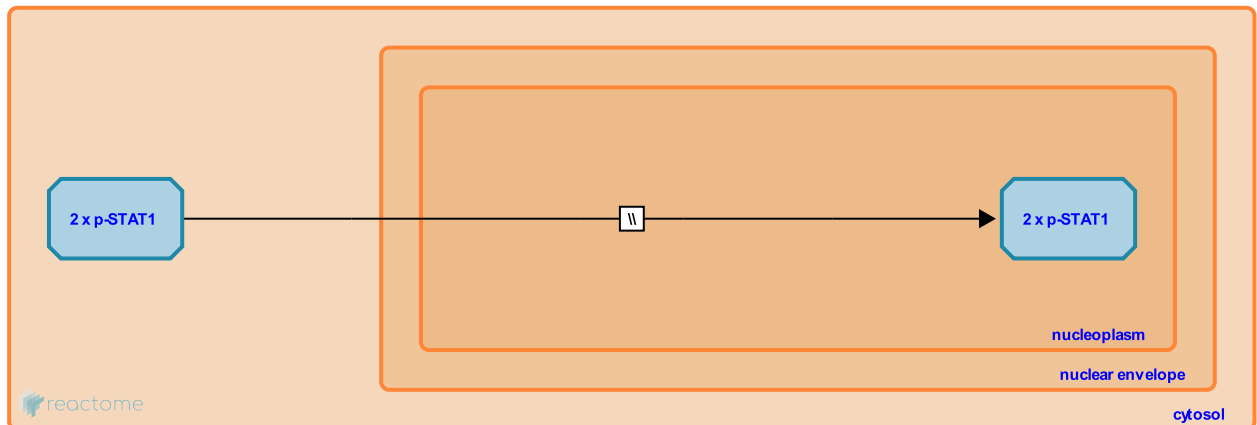
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987218

Type: omitted

Compartments: nucleoplasm, cytosol

Inferred from: [p-STAT1 dimer translocates from the cytosol to the nucleoplasm \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [p-STAT1 dimerizes](#)

IL20 binds to IL22RA1:JAK1:IL20RB ↗

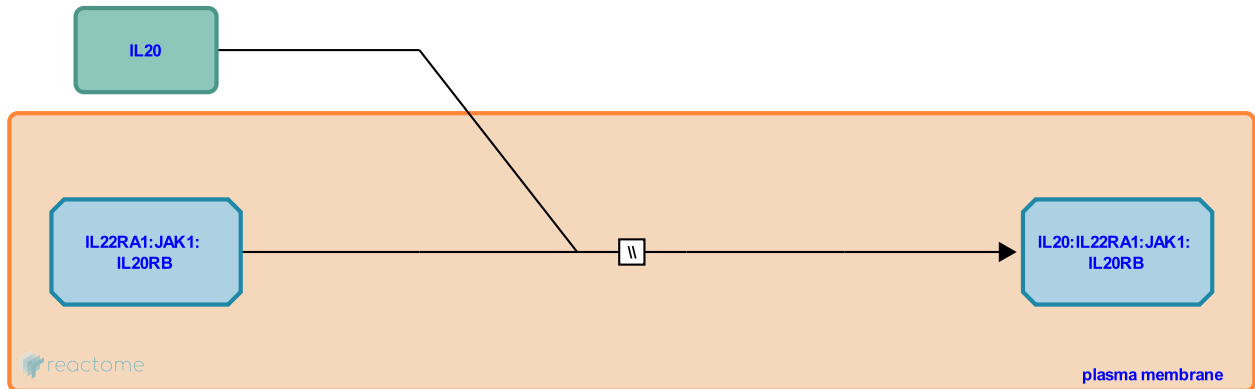
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-9009227

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL20 binds to IL22RA1:JAK1:IL20RB \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

IL24 binds to IL22RA1:JAK1:IL20RB ↗

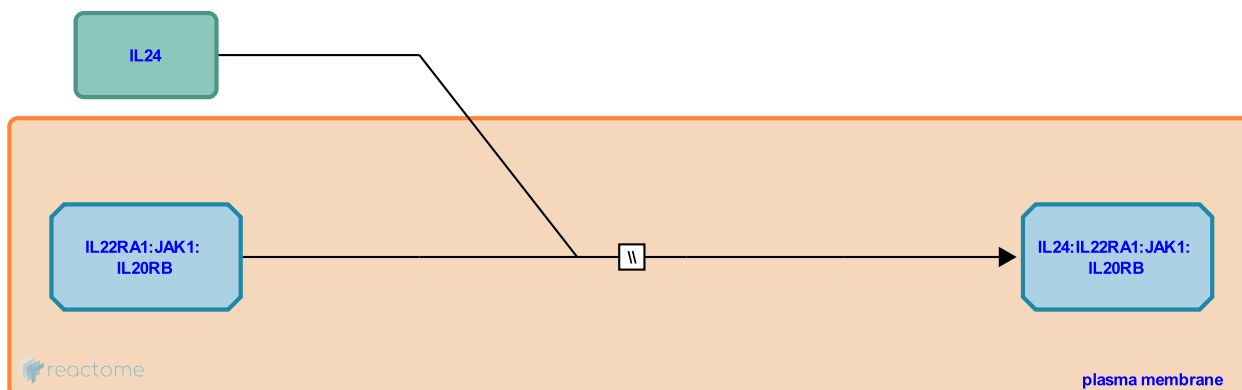
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-448708

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL24 binds to IL22RA1:JAK1:IL20RB \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Followed by: [IL24:IL22RA1:JAK1:IL20RB phosphorylates JAK1](#)

IL24:IL22RA1:JAK1:IL20RB phosphorylates JAK1 ↗

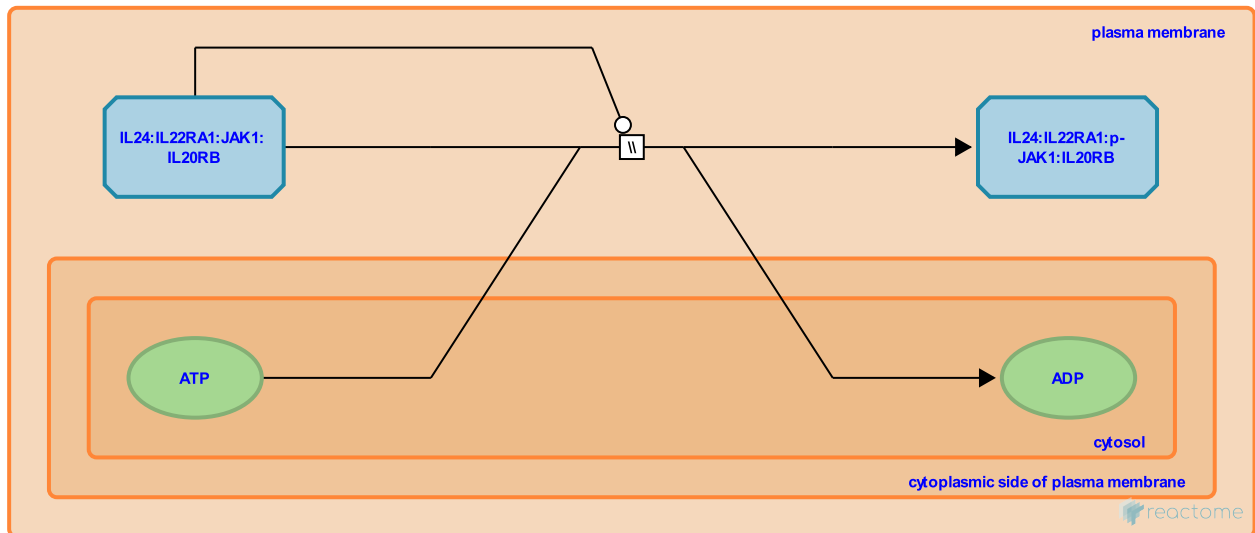
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987012

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL24:IL22RA1:JAK1:IL20RB phosphorylates JAK1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL24 binds to IL22RA1:JAK1:IL20RB](#)

Followed by: [IL24:IL22RA1:p-JAK1:IL20RB binds STAT3](#)

IL24:IL22RA1:p-JAK1:IL20RB binds STAT3 ↗

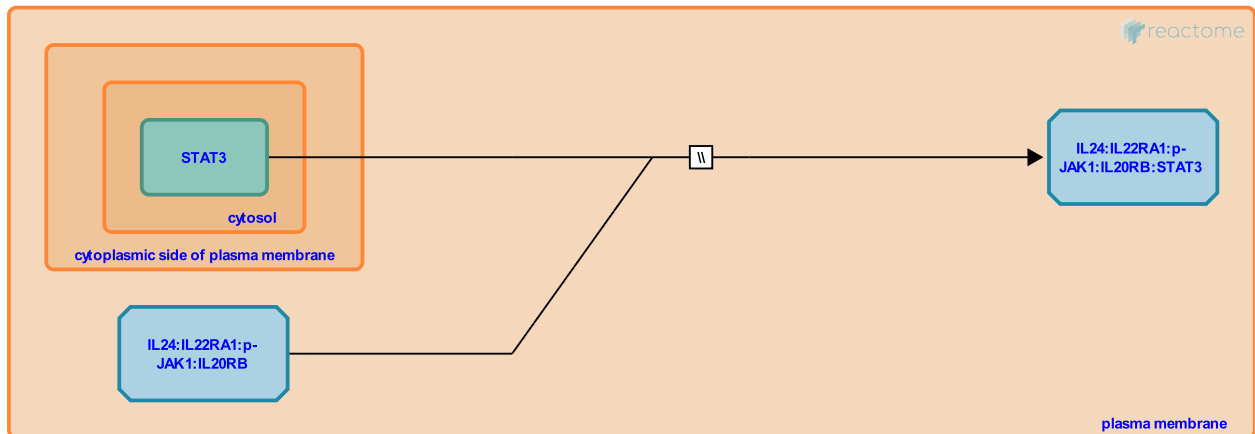
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987063

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL24:IL22RA1:p-JAK1:IL20RB binds STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL24:IL22RA1:JAK1:IL20RB phosphorylates JAK1](#)

Followed by: [IL24:IL22RA1:p-JAK1:IL20RB:STAT3 phosphorylates STAT3](#)

IL24:IL22RA1:p-JAK1:IL20RB:STAT3 phosphorylates STAT3 ↗

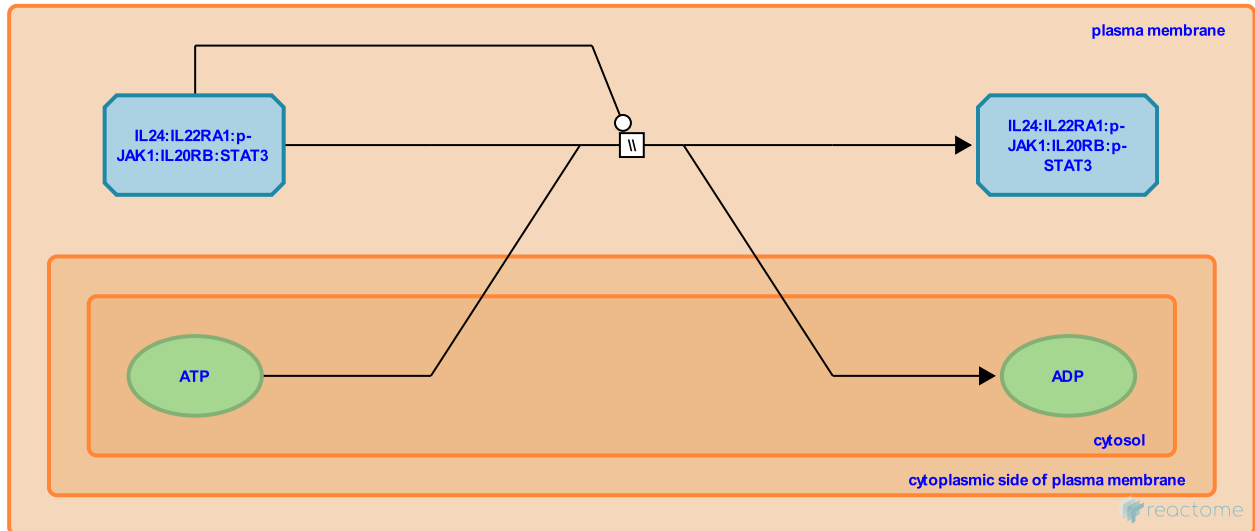
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987096

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL24:IL22RA1:p-JAK1:IL20RB:STAT3 phosphorylates STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL24:IL22RA1:p-JAK1:IL20RB binds STAT3](#)

Followed by: [p-STAT3 dissociates from IL24:IL22RA1:p-JAK1:IL20RB:p-STAT3](#)

p-STAT3 dissociates from IL24:IL22RA1:pJAK1:IL20RB:pSTAT3 ↗

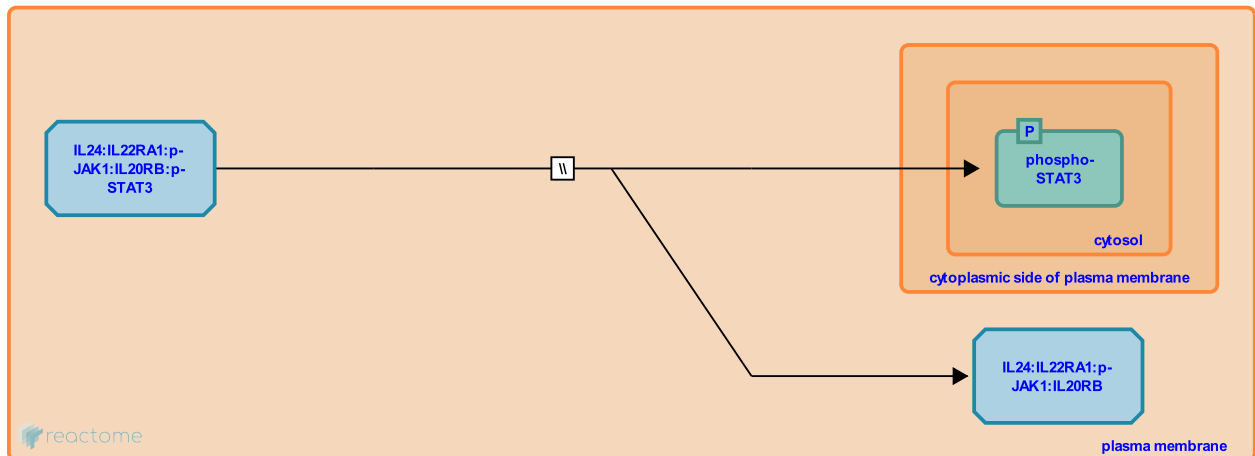
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987161

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [p-STAT3 dissociates from IL24:IL22RA1:pJAK1:IL20RB:pSTAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL24:IL22RA1:p-JAK1:IL20RB:STAT3 phosphorylates STAT3](#)

Followed by: [p-STAT3 dimerizes](#)

IL26 binds IL20RA:JAK1 ↗

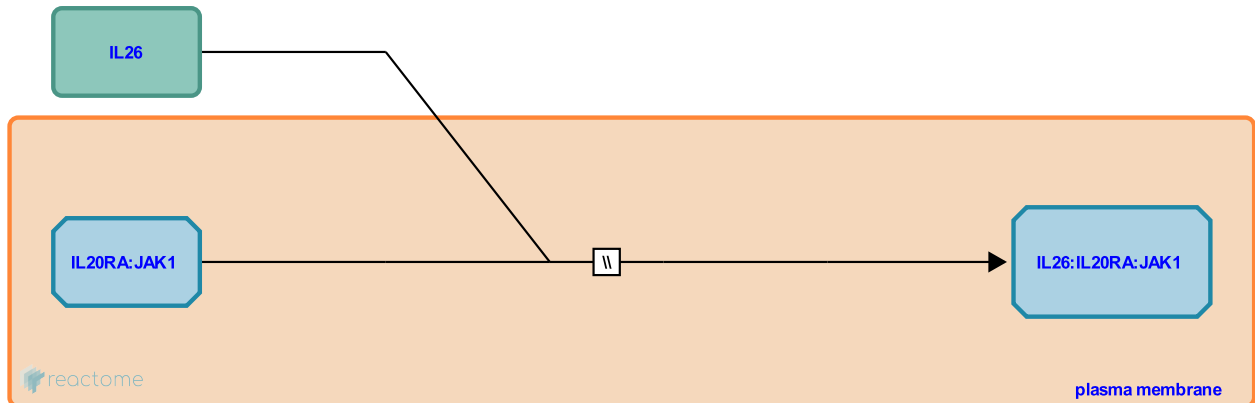
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8986446

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL26 binds IL20RA:JAK1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [JAK1 binds IL20RA](#)

Followed by: [IL26:IL20RA:JAK1 binds IL10RB:TYK2](#)

IL10RB binds TYK2 ↗

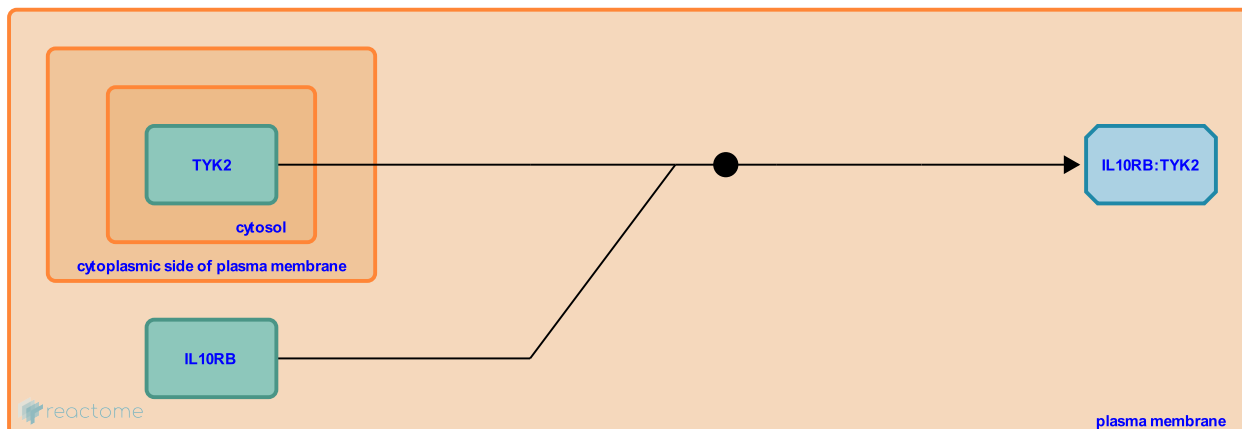
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987223

Type: binding

Compartments: plasma membrane, cytosol

Inferred from: [IL10RB binds TYK2 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Followed by: [IFNL2,IFNL3 bind IL10RB:TYK2 and IFNLR1:JAK1](#), [IL26:IL20RA:JAK1 binds IL10RB:TYK2](#), [IL22:IL22RA1:JAK1 binds IL10RB:TYK2](#), [IFNL1 binds IL10RB:TYK2 and IFNLR1:JAK1](#)

IL26:IL20RA:JAK1 binds IL10RB:TYK2 ↗

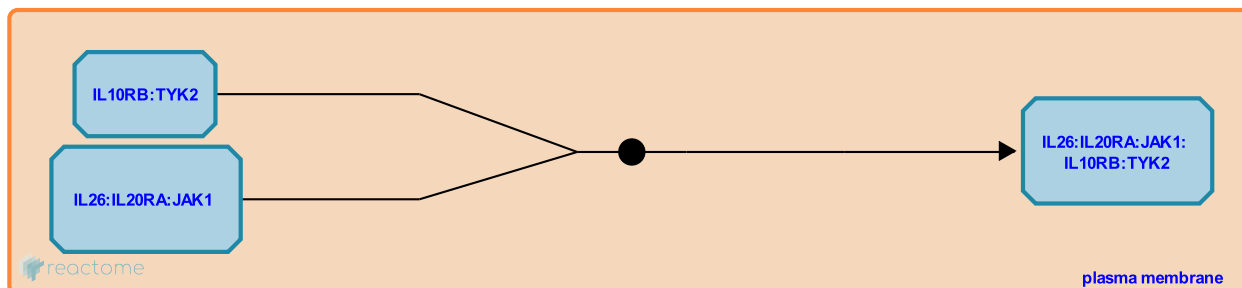
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8986480

Type: binding

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL26:IL20RA:JAK1 binds IL10RB:TYK2 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL26 binds IL20RA:JAK1](#), [IL10RB binds TYK2](#)

Followed by: [IL26:IL20RA:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2](#)

IL26:IL20RA:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2 ↗

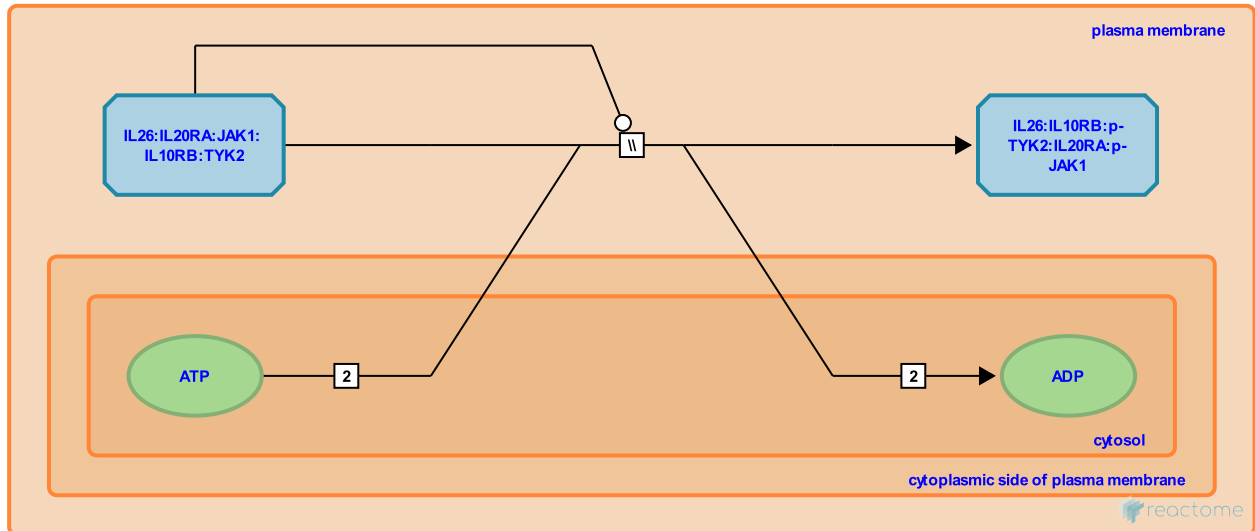
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8986994

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL26:IL20RA:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL26:IL20RA:JAK1 binds IL10RB:TYK2](#)

Followed by: [IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 binds STAT1, STAT3](#)

IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 binds STAT1, STAT3 ↗

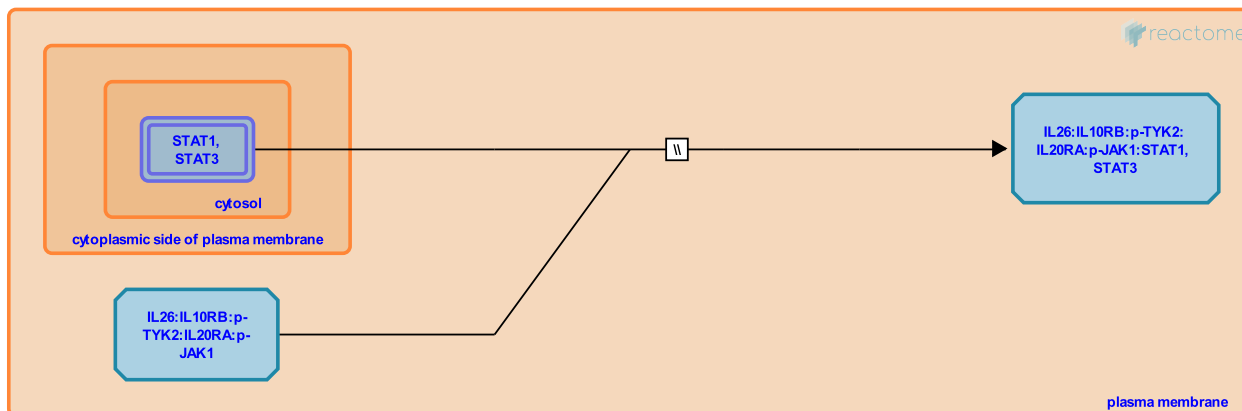
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987080

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 binds STAT1, STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL26:IL20RA:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2](#)

Followed by: [IL26:IL10RB:p-TYK2:IL20RA:p-JAK1:STAT1,STAT3 phosphorylates STAT1,STAT3](#)

IL26:IL10RB:p-TYK2:IL20RA:p-JAK1:STAT1,STAT3 phosphorylates STAT1,STAT3 ↗

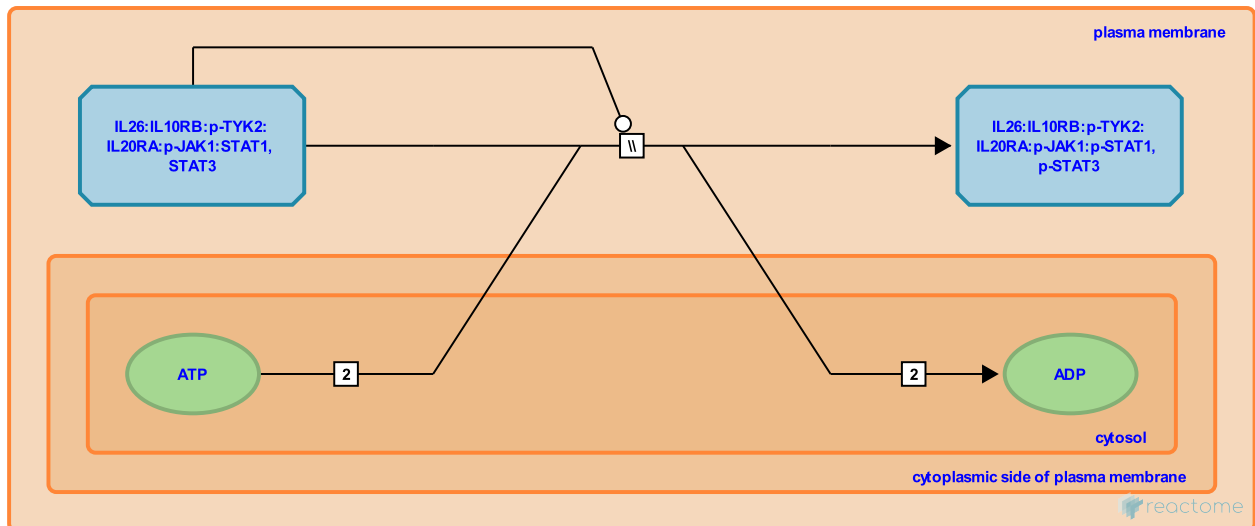
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987255

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL26:IL10RB:p-TYK2:IL20RA:p-JAK1:STAT1,STAT3 phosphorylates STAT1,STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 binds STAT1, STAT3](#)

Followed by: [p-STAT1 and p-STAT3 dissociates from IL26:IL10RB:p-TYK2:IL20RA:p-JAK1](#)

p-STAT1 and p-STAT3 dissociates from IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 ↗

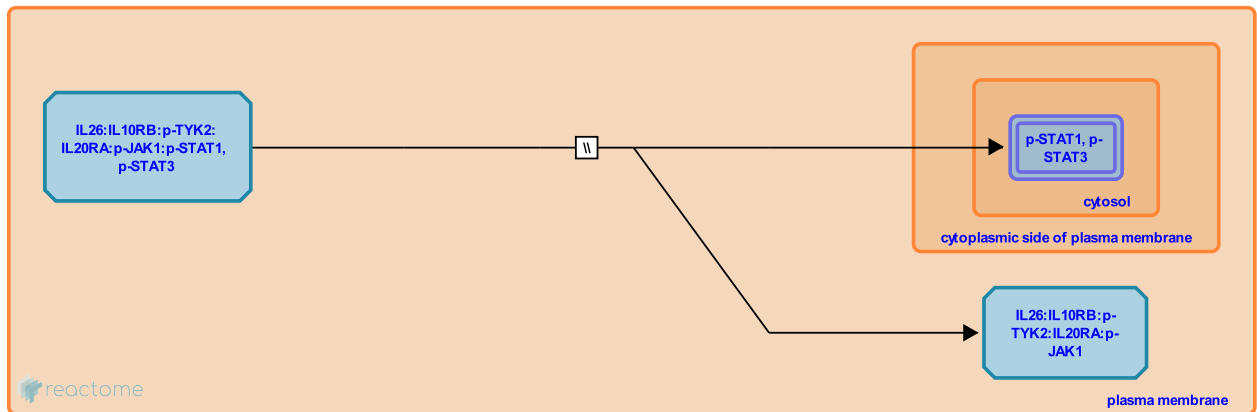
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987230

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [p-STAT1 and p-STAT3 dissociates from IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL26:IL10RB:p-TYK2:IL20RA:p-JAK1:STAT1,STAT3 phosphorylates STAT1,STAT3](#)

Followed by: [p-STAT1 dimerizes, p-STAT3 dimerizes](#)

IL22RA1 binds JAK1 ↗

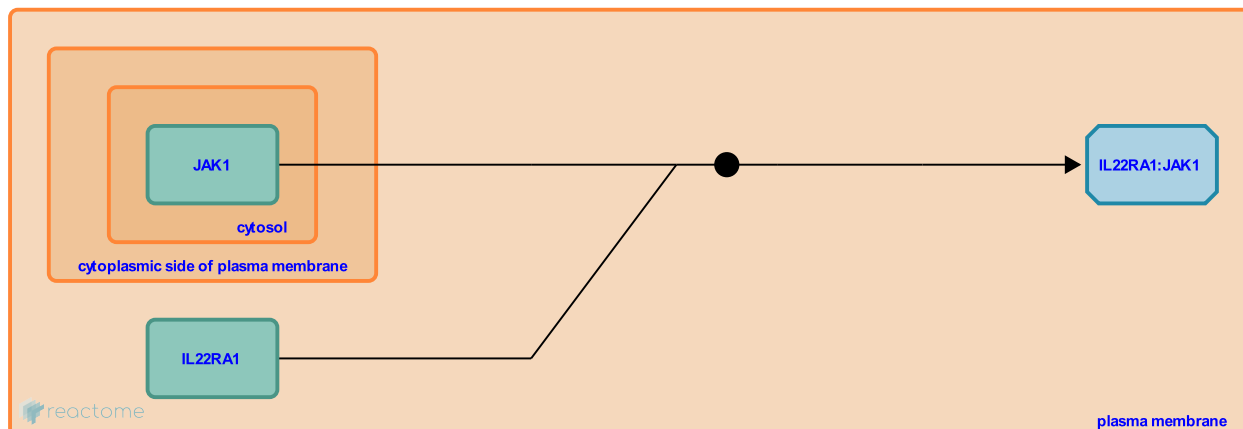
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987043

Type: binding

Compartments: plasma membrane, cytosol

Inferred from: [IL22RA1 binds JAK1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Followed by: [IL22 binds IL22RA1:JAK1 receptor complex](#)

IL22RA2 binds IL22 ↗

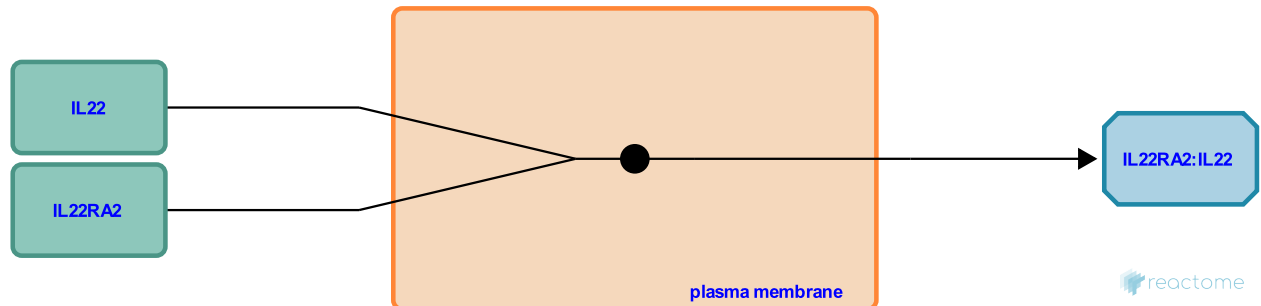
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-448741

Type: binding

Compartments: plasma membrane, extracellular region

Inferred from: [IL22RA2 binds IL22 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Followed by: [IL22 binds IL22RA1:JAK1 receptor complex](#)

IL22 binds IL22RA1:JAK1 receptor complex ↗

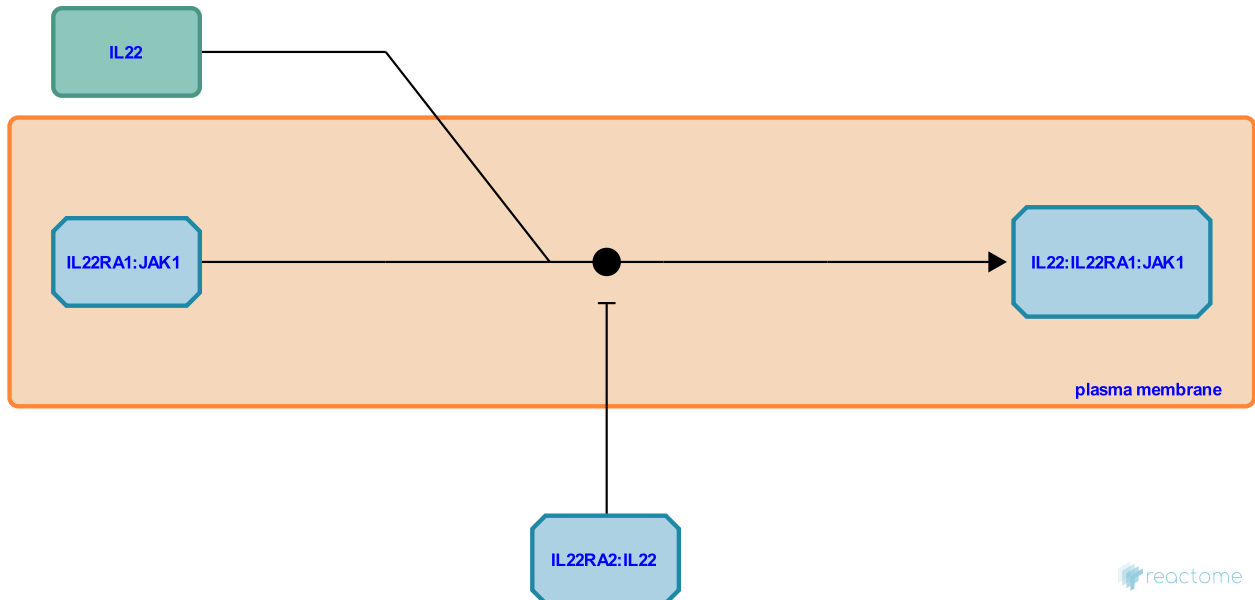
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-448480

Type: binding

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL22 binds IL22RA1:JAK1 receptor complex \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22RA2 binds IL22](#), [IL22RA1 binds JAK1](#)

Followed by: [IL22:IL22RA1:JAK1 binds IL10RB:TYK2](#)

IL22:IL22RA1:JAK1 binds IL10RB:TYK2 ↗

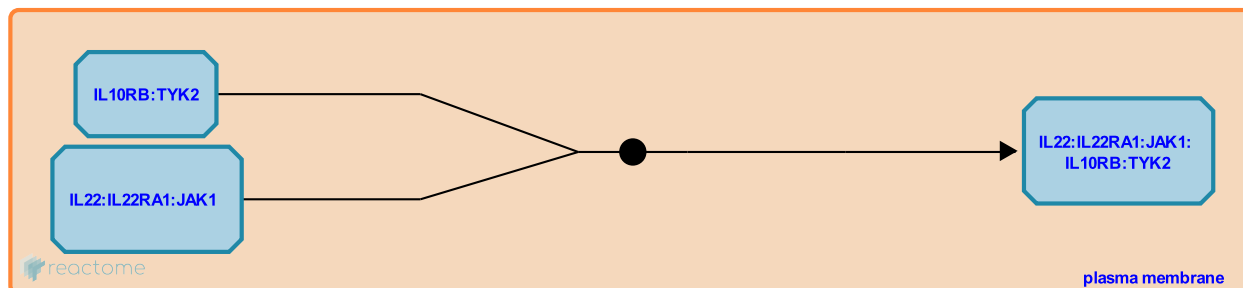
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8854645

Type: binding

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL22:IL22RA1:JAK1 binds IL10RB:TYK2 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22 binds IL22RA1:JAK1 receptor complex](#), [IL10RB binds TYK2](#)

Followed by: [IL22:IL22RA1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2](#)

IL22:IL22RA1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2 ↗

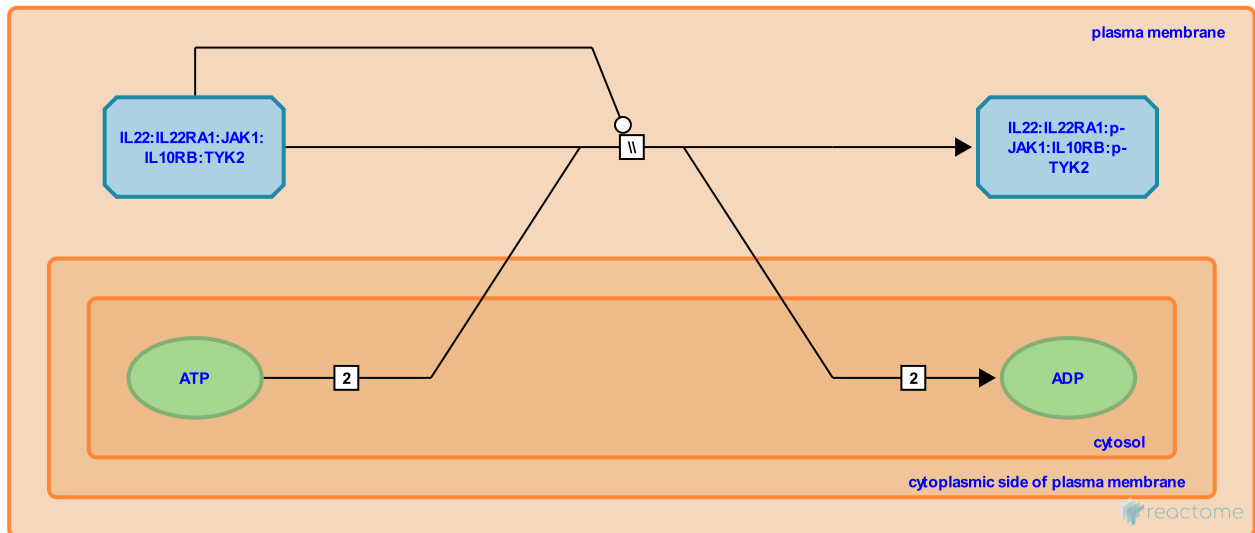
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987042

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL22:IL22RA1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22:IL22RA1:JAK1 binds IL10RB:TYK2](#)

Followed by: [IL22:IL22RA1:p-JAK1:IL10RB:p-TYK2 phosphorylates IL22RA](#)

IL22:IL22RA1:p-JAK1:IL10RB:p-TYK2 phosphorylates IL22RA

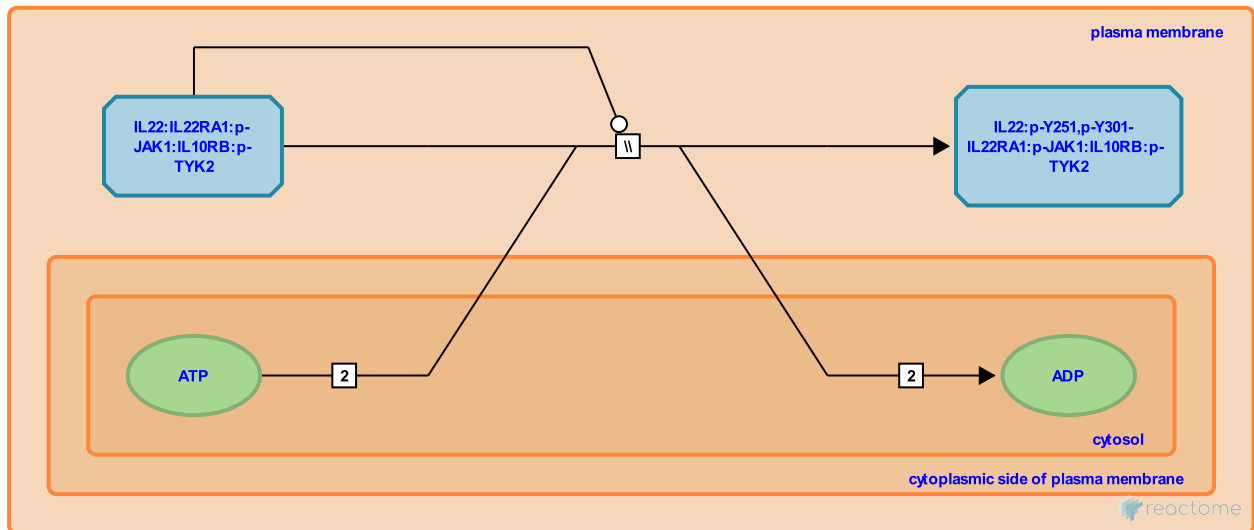
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8986995

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL22:IL22RA1:p-JAK1:IL10RB:p-TYK2 phosphorylates IL22RA \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22:IL22RA1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2](#)

Followed by: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds PTPN11](#)

IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds PTPN11 ↗

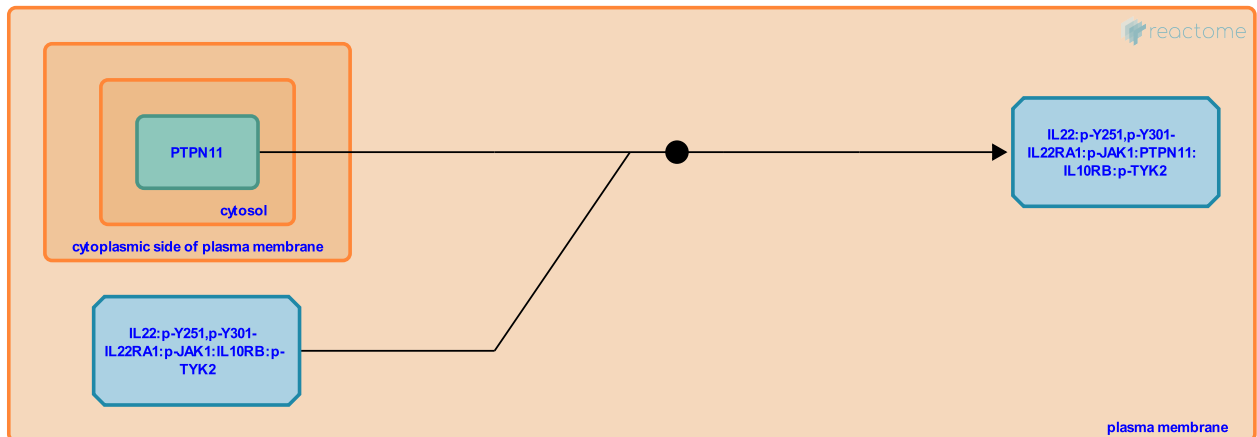
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987132

Type: binding

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds PTPN11 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22:IL22RA1:p-JAK1:IL10RB:p-TYK2 phosphorylates IL22RA](#)

Followed by: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds STAT3](#)

IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds STAT3 ↗

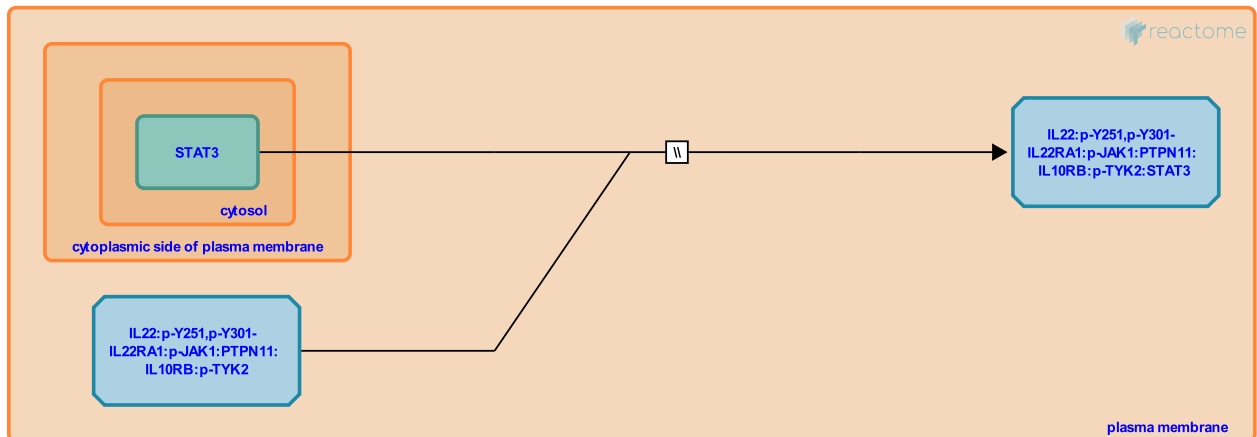
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987014

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds PTPN11](#)

Followed by: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:STAT3 phosphorylates STAT3](#)

IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:STAT3 phosphorylates STAT3



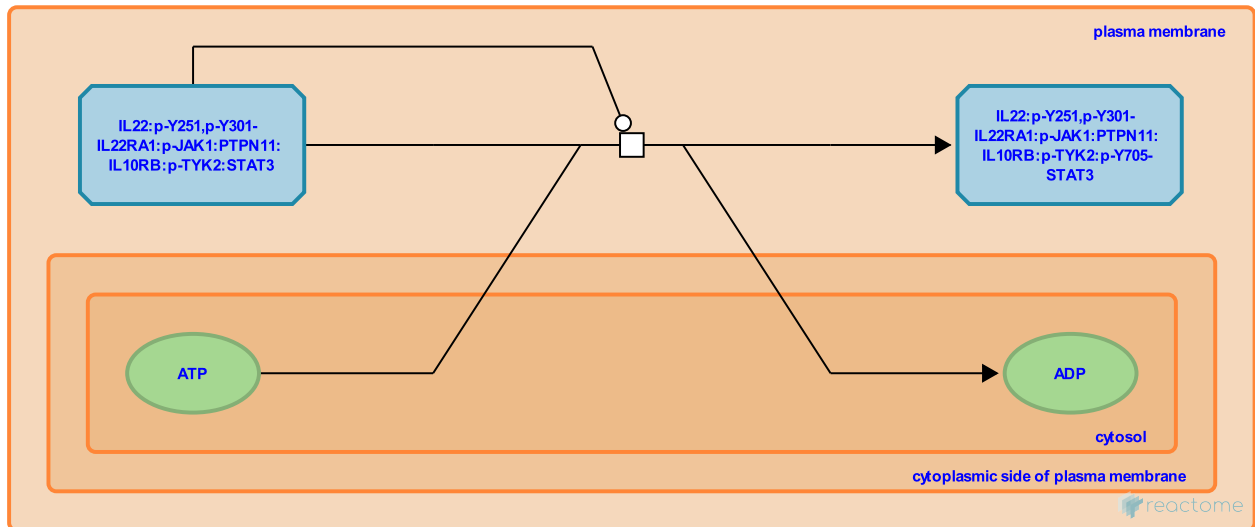
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987070

Type: transition

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:STAT3 phosphorylates STAT3](#) (Homo sapiens)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds STAT3](#)

Followed by: [p-Y705-STAT3 dissociates from IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:p-Y705-STAT3](#)

p-Y705-STAT3 dissociates from IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:p-Y705-STAT3 ↗

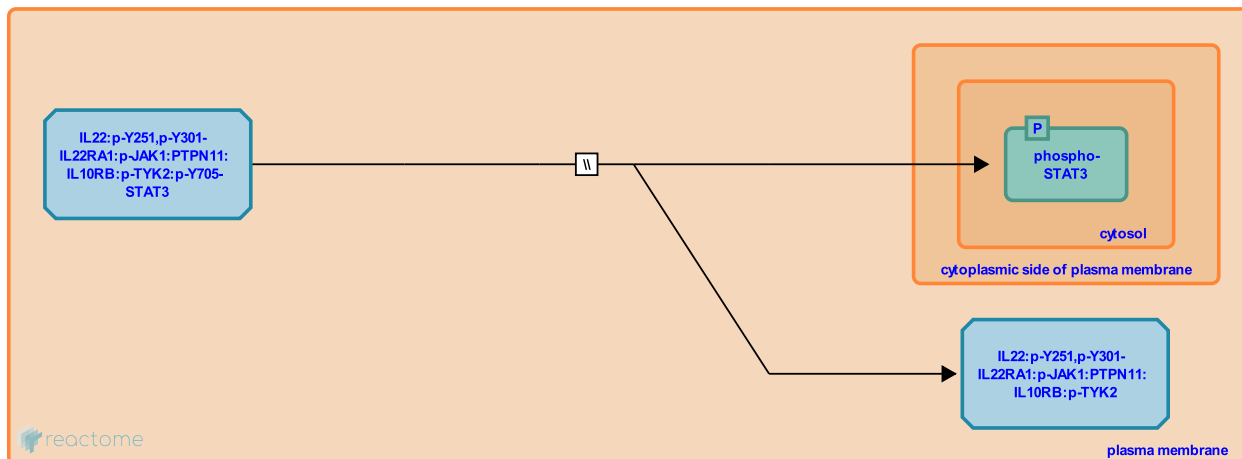
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987236

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [p-Y705-STAT3 dissociates from IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:p-Y705-STAT3 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:STAT3 phosphorylates STAT3](#)

Followed by: [p-Y705-STAT3 dimerizes](#)

JAK1 binds IFNLR1 ↗

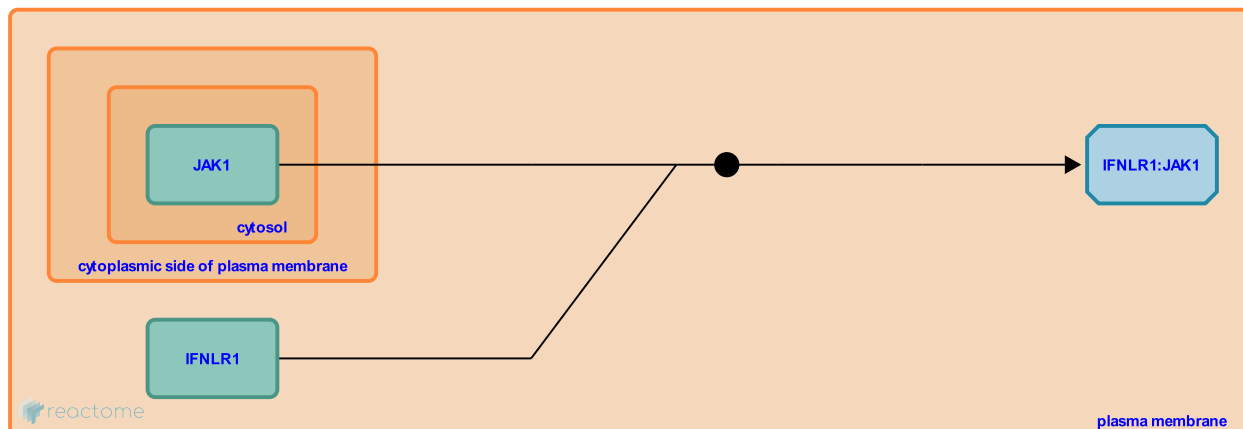
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987120

Type: binding

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [JAK1 binds IFNLR1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Followed by: [IFNL2,IFNL3 bind IL10RB:TYK2 and IFNLR1:JAK1](#), [IFNL1 binds IL10RB:TYK2 and IFNLR1:JAK1](#)

IFNL2,IFNL3 bind IL10RB:TYK2 and IFNLR1:JAK1 ↗

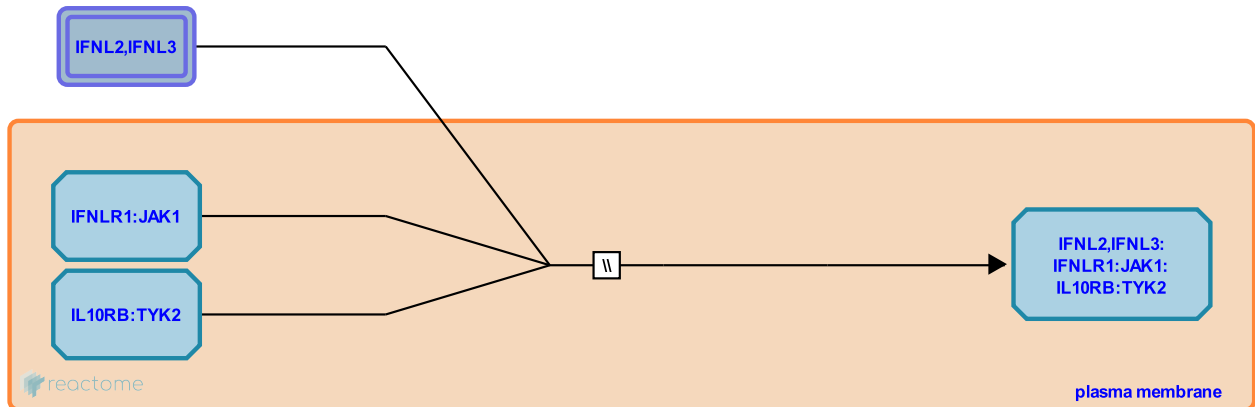
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987105

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IFNL2,IFNL3 bind IL10RB:TYK2 and IFNLR1:JAK1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [JAK1 binds IFNLR1](#), [IL10RB binds TYK2](#)

IFNL1 binds IL10RB:TYK2 and IFNLR1:JAK1 ↗

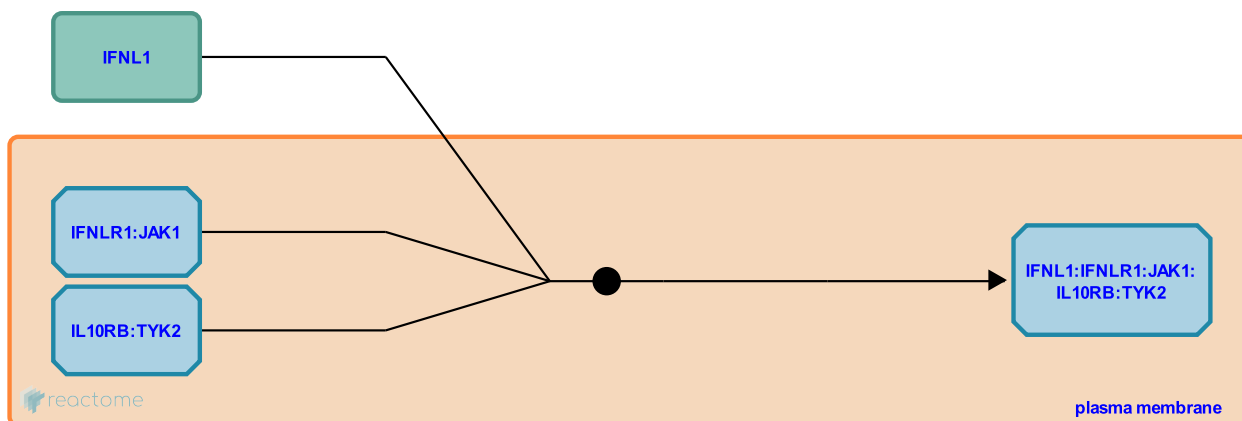
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-448661

Type: binding

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IFNL1 binds IL10RB:TYK2 and IFNLR1:JAK1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [JAK1 binds IFNLR1](#), [IL10RB binds TYK2](#)

Followed by: [IFNL1:IFNLR1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2](#)

IFNL1:IFNLR1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2 ↗

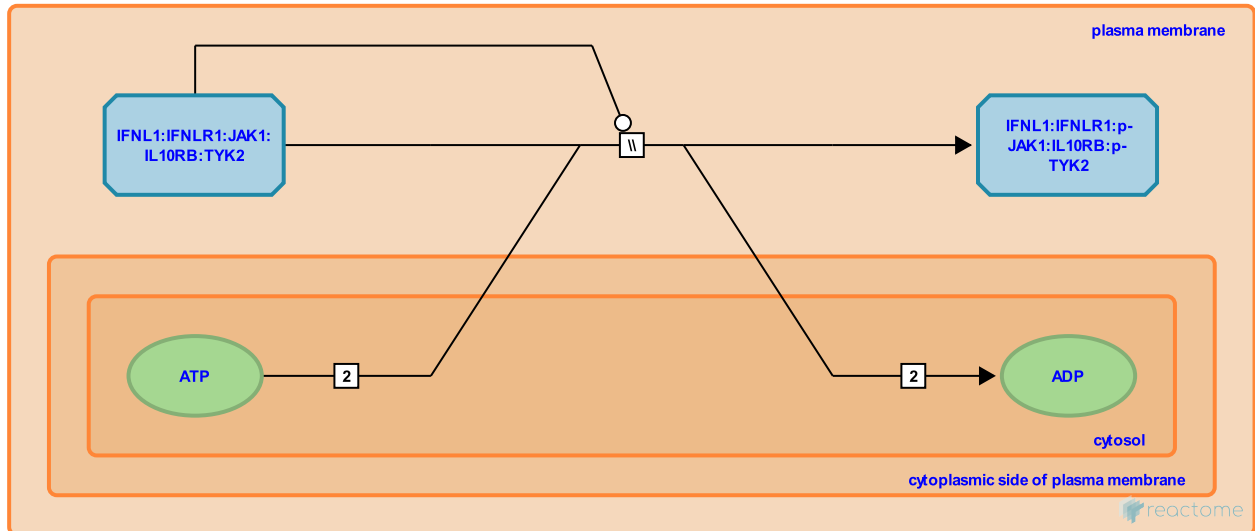
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987202

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IFNL1:IFNLR1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IFNL1 binds IL10RB:TYK2 and IFNLR1:JAK1](#)

Followed by: [IFNL1:IFNLR1:p-JAK1:IL10RB:p-TYK2 phosphorylates IFNLR1](#)

IFNL1:IFNLR1:p-JAK1:IL10RB:p-TYK2 phosphorylates IFNLR1 ↗

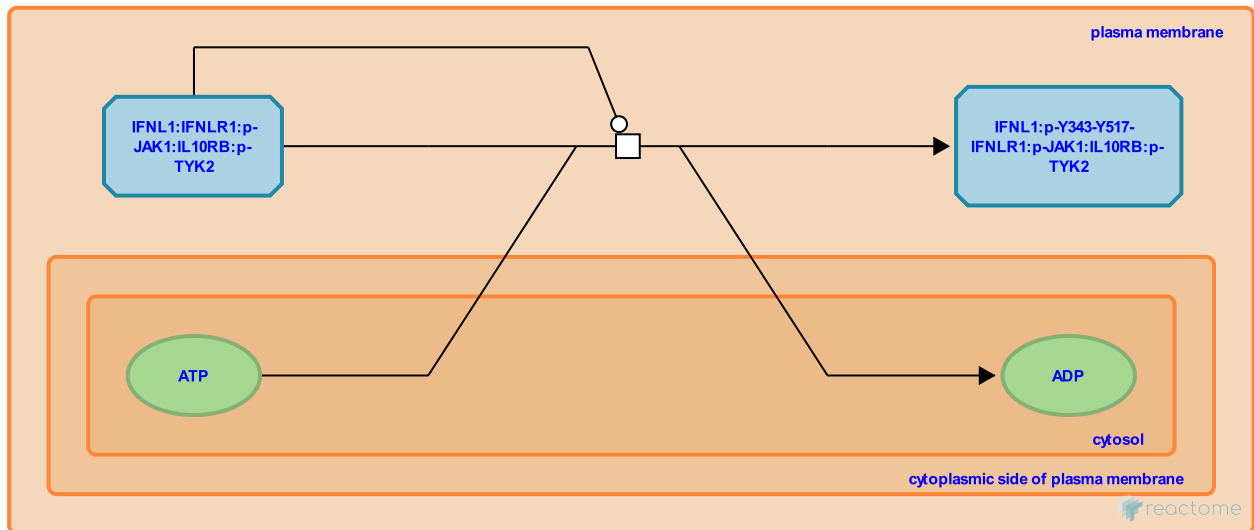
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987040

Type: transition

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IFNL1:IFNLR1:p-JAK1:IL10RB:p-TYK2 phosphorylates IFNLR1 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IFNL1:IFNLR1:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2](#)

Followed by: [IFNL1:p-Y434, Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2 binds STAT1, STAT2, STAT3, STAT4, STAT5](#)

IFNL1:p-Y434,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2 binds STAT1, STAT2, STAT3, STAT4, STAT5 ↗

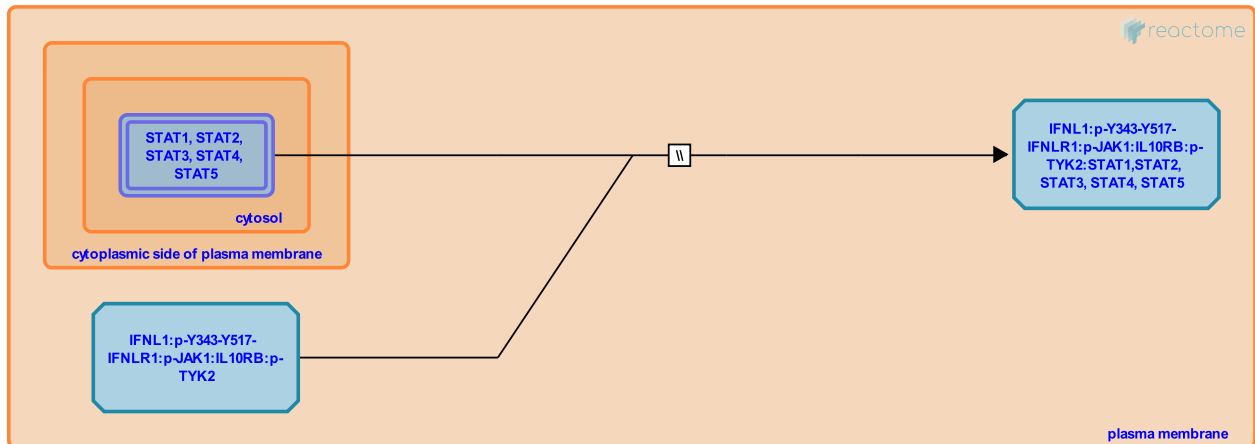
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987266

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [IFNL1:p-Y434,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2 binds STAT1, STAT2, STAT3, STAT4, STAT5 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IFNL1:IFNLR1:p-JAK1:IL10RB:p-TYK2 phosphorylates IFNLR1](#)

Followed by: [IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:STAT1 phosphorylates STAT1, STAT2, STAT3, STAT4 and STAT5](#)

IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:STAT1 phosphorylates STAT1, STAT2, STAT3, STAT4 and STAT5 ↗

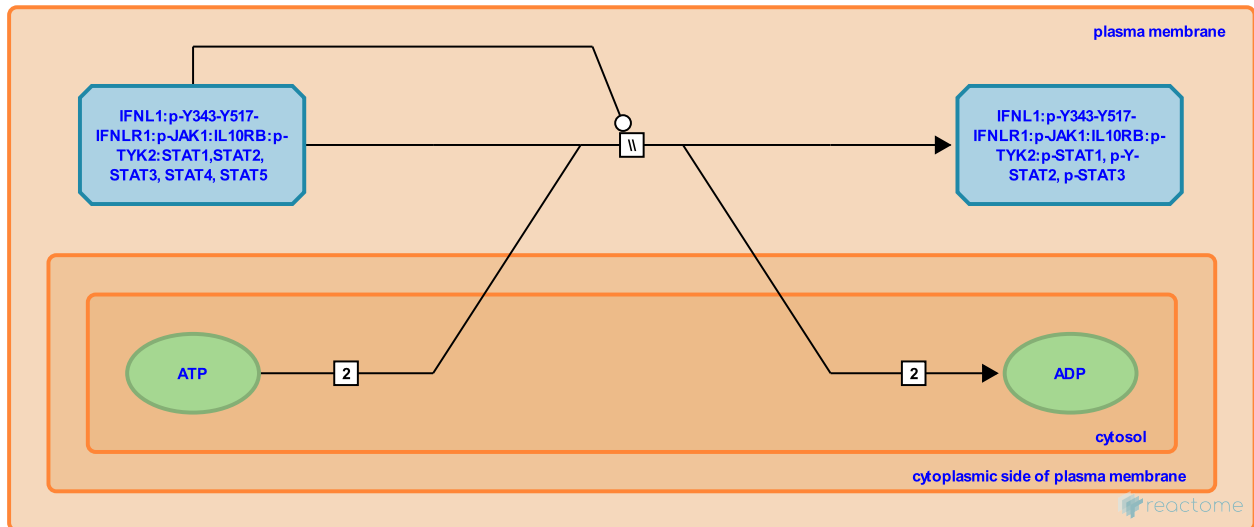
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8986985

Type: omitted

Compartments: plasma membrane, cytoplasm, extracellular region

Inferred from: IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:STAT1 phosphorylates STAT1, STAT2, STAT3, STAT4 and STAT5 (Homo sapiens)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: IFNL1:p-Y434,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2 binds STAT1, STAT2, STAT3, STAT4, STAT5

Followed by: p-STAT1, p-Y-STAT2, p-STAT3, p-STAT4, p-STAT5 dissociates from IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:p-STAT1,p-STAT2,p-STAT3,p-STAT4,p-STAT5

p-STAT1, p-Y-STAT2, p-STAT3, p-STAT4, p-STAT5 dissociates from IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:p-STAT1,p-STAT2,p-STAT3,p-STAT4,p-STAT5 ↗

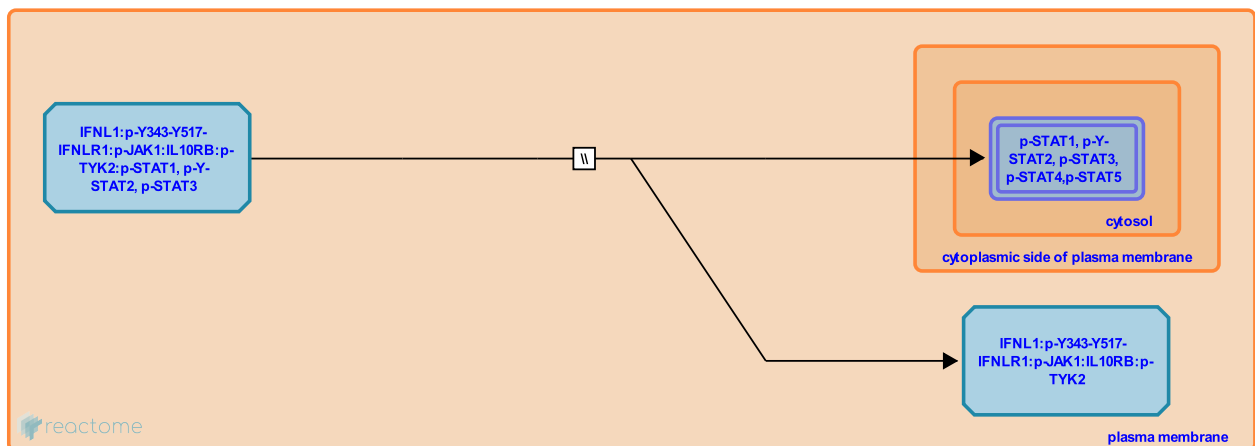
Location: [Interleukin-20 family signaling](#)

Stable identifier: R-BTA-8987033

Type: omitted

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [p-STAT1, p-Y-STAT2, p-STAT3, p-STAT4, p-STAT5 dissociates from IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:p-STAT1,p-STAT2,p-STAT3,p-STAT4,p-STAT5 \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Preceded by: [IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:STAT1 phosphorylates STAT1, STAT2, STAT3, STAT4 and STAT5](#)

Followed by: [p-STAT1 dimerizes, p-STAT3 dimerizes](#)

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| ↔ IL26:IL20RA:JAK1:IL10RB:TYK2 phosphorylates JAK1, TYK2 | 36 |
| ↔ IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 binds STAT1, STAT3 | 37 |
| ↔ IL26:IL10RB:p-TYK2:IL20RA:p-JAK1:STAT1,STAT3 phosphorylates STAT1,STAT3 | 38 |
| ↔ p-STAT1 and p-STAT3 dissociates from IL26:IL10RB:p-TYK2:IL20RA:p-JAK1 | 39 |
| ↳ IL22RA1 binds JAK1 | 40 |
| ↳ IL22RA2 binds IL22 | 41 |
| ↳ IL22 binds IL22RA1:JAK1 receptor complex | 42 |
| ↳ IL22:IL22RA1:JAK1 binds IL10RB:TYK2 | 43 |
| ↔ IL22:IL22RA1:JAK1:IL10RB:TYK2 phosphorylates JAK1,TYK2 | 44 |
| ↔ IL22:IL22RA1:p-JAK1:IL10RB:p-TYK2 phosphorylates IL22RA | 45 |
| ↳ IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds PTPN11 | 46 |
| ↔ IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:PTPN11:IL10RB:p-TYK2 binds STAT3 | 47 |
| ↳ IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:STAT3 phosphorylates STAT3 | 48 |
| ↔ p-Y705-STAT3 dissociates from IL22:p-Y251,p-Y301-IL22RA1:p-JAK1:IL10RB:p-TYK2:p-Y705-STAT3 | 49 |
| ↳ JAK1 binds IFNLR1 | 50 |
| ↔ IFNL2,IFNL3 bind IL10RB:TYK2 and IFNLR1:JAK1 | 51 |
| ↳ IFNL1 binds IL10RB:TYK2 and IFNLR1:JAK1 | 52 |
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| ↳ IFNL1:IFNLR1:p-JAK1:IL10RB:p-TYK2 phosphorylates IFNLR1 | 54 |
| ↔ IFNL1:p-Y434,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2 binds STAT1, STAT2, STAT3, STAT4, STAT5 | 55 |
| ↔ IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:STAT1 phosphorylates STAT1, STAT2, STAT3, STAT4 and STAT5 | 56 |
| ↔ p-STAT1, p-Y-STAT2, p-STAT3, p-STAT4, p-STAT5 dissociates from IFNL1:p-Y343,Y517-IFNLR1:p-JAK1:IL10RB:p-TYK2:p-STAT1,p-STAT2,p-STAT3,p-STAT4,p-STAT5 | 57 |
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