DS ligand bound to FT receptor

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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.

26/12/2022
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 5 pathways and 3 reactions (see Table of Contents)
DS ligand bound to FT receptor

**Stable identifier:** R-DME-390150

Spatzle (SPZ) dimer binding leads to Toll (TL) receptor homodimerisation and activation.

**Literature references**


**Editions**

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**Subcellular localisation of D**

**Location:** DS ligand bound to FT receptor

**Stable identifier:** R-DME-390023

**Compartments:** cytosol

Spatzle (SPZ) dimer binding leads to Toll (TL) receptor homodimerisation and activation.

**Literature references**


**Editions**

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Formation of the Hippo kinase cassette

Location: DS ligand bound to FT receptor

Stable identifier: R-DME-390089

Compartments: cytosol

Spatzle (SPZ) dimer binding leads to Toll (TL) receptor homodimerisation and activation.

Literature references


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https://reactome.org
**Phosphorylation-dependent inhibition of YKI**

**Location:** DS ligand bound to FT receptor  

**Stable identifier:** R-DME-390098  

**Compartments:** cytosol

Spatzle (SPZ) dimer binding leads to Toll (TL) receptor homodimerisation and activation.

**Literature references**


**Editions**

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Phosphorylation-independent inhibition of YKI

Location: DS ligand bound to FT receptor

Stable identifier: R-DME-451806

Spatzle (SPZ) dimer binding leads to Toll (TL) receptor homodimerisation and activation.

Literature references


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Activated Hippo (HPO) serine/threonine kinase phosphorylates Thread (TH) aka drosophila inhibitor of apoptosis protein 1 (Diap1) at unknown residues. This affects TH’s stability.

**Literature references**


Ras association family member (RASSF) associates with inactive Hippo (HPO) kinase homodimer through their shared SARAH (Salvador/Rassf/Hippo) domains. It should be noted that Hippo (HPO) kinase domain also associates with scaffolding protein Salvador (SAV) through SARAH domains. However, RASSF fails to bind to SAV. HPO associated with RASSF shows barely detectable levels of phosphorylation. In this complex, HPO homodimer remains unphosphorylated and inactive. Thus, RASSF restricts HPO activity by competing with SAV for binding to HPO homodimer.

**Literature references**


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The small protein Lowfat (LFT) binds to the cytoplasmic domains of the cadherin domain containing transmembrane proteins Fat (FT) and Dachsous (DS). The function of LFT is currently unknown but it does appear to increase FT and DS protein levels.

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[https://reactome.org](https://reactome.org)
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- LFT binds to FT and DS

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