hp-IRAK1,hp-IRAK4 bind Pellino1,2,3

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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

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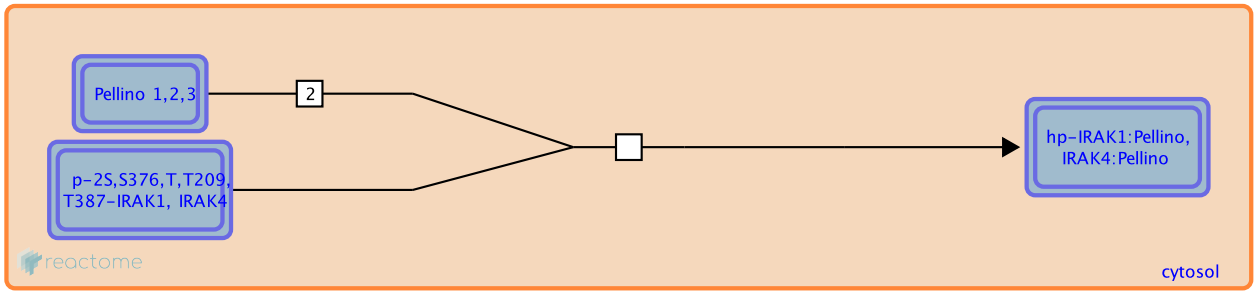
Stable identifier: R-HSA-450690

Type: transition

Compartments: cytosol



IRAK1 and 4 interact with Pellino-1 (Jiang et al. 2003), 2 (Strellow et al. 2003) and 3 (Butler et al. 2005, 2007). Pellinos may act as scaffolding proteins, bringing signaling complexes into proximity. They are E3 ubiquitin ligases capable of ubiquitinating IRAK1, believed to mediate IL-1-stimulated formation of K63-polyubiquitinated IRAK1 in cells.

Though not clearly demonstrated and therefore not shown here, the current models of IRAK1 involvement suggest it would be within a complex including TRAF6.

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Editions

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