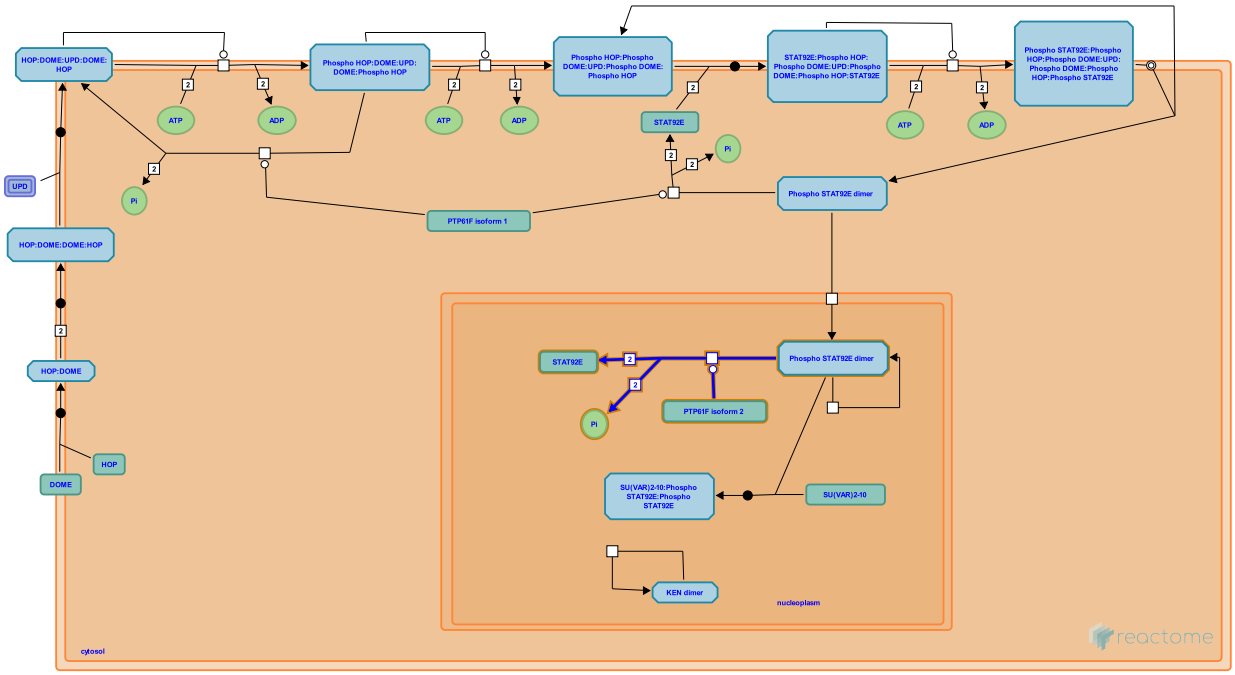
STAT92E dimer dephosphorylated in the nucleus and transported to the cytosol



Perrimon, N., Williams, MG.

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17/05/2024

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).

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Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

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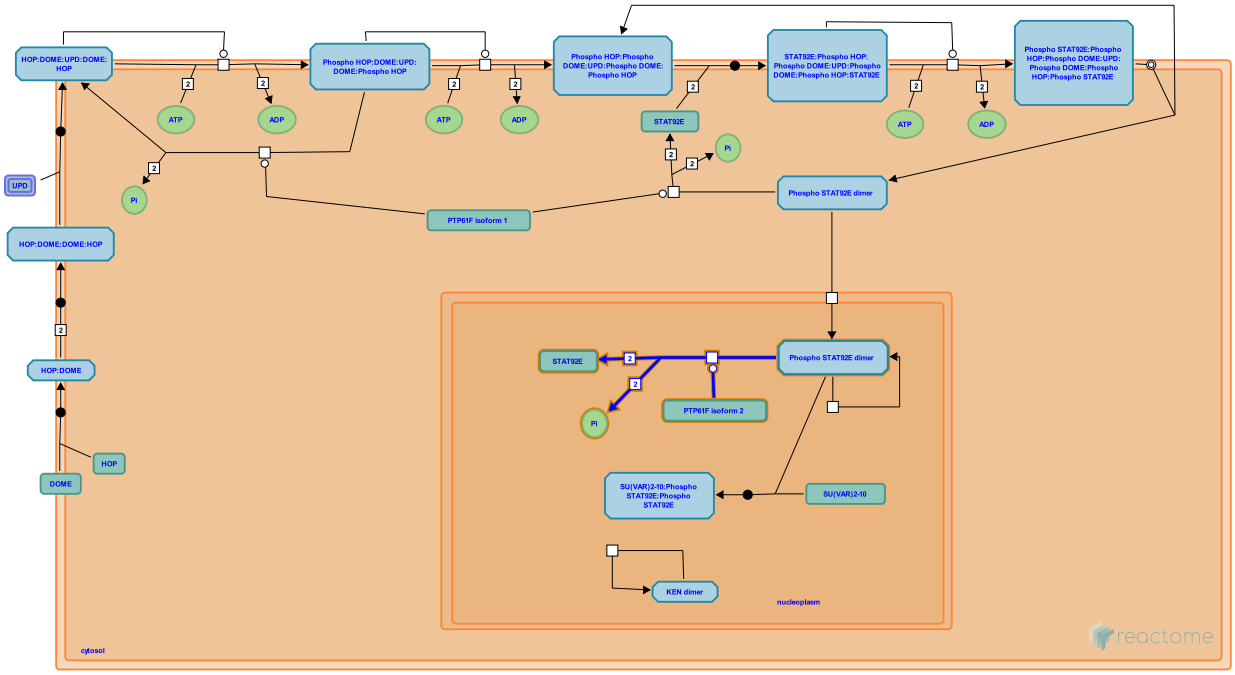
STAT92E dimer dephosphorylated in the nucleus and transported to the cytosol ↗

Stable identifier: R-DME-210693



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

Literature references

Arbouzova, NI., Zeidler, MP. (2006). JAK/STAT signalling in Drosophila: insights into conserved regulatory and cellular functions. *Development, 133*, 2605-16. ↗

Editions

2006-11-02	Authored	Williams, MG.
2008-01-15	Edited	Williams, MG.
2008-01-16	Reviewed	Perrimon, N.

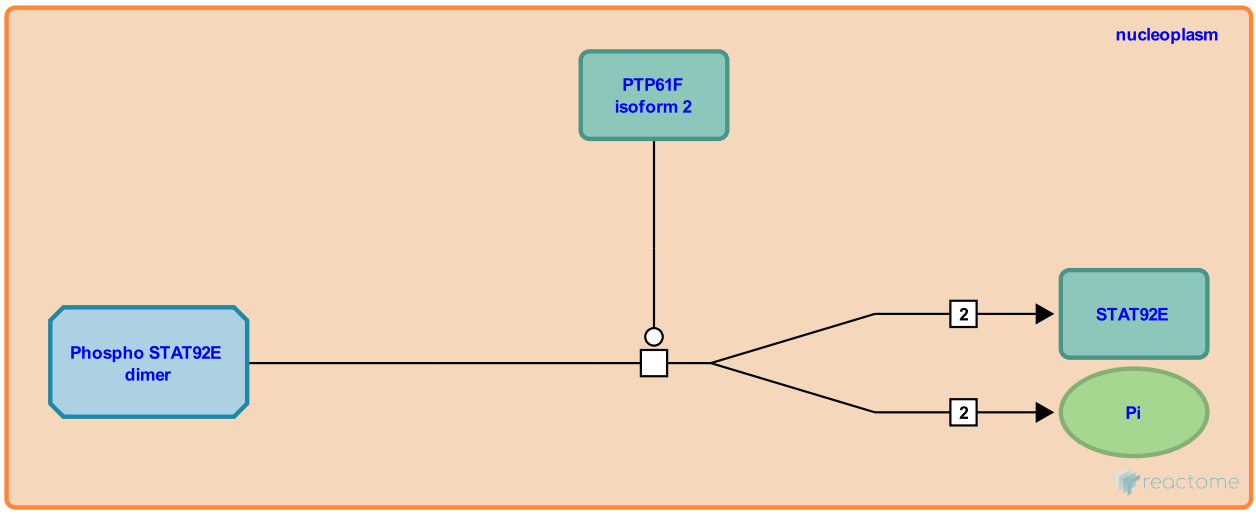
Phosphorylated STAT92E dimer is dephosphorylated by PTP61F isoform 2 ↗

Location: STAT92E dimer dephosphorylated in the nucleus and transported to the cytosol

Stable identifier: R-DME-210694

Type: transition

Compartments: nucleoplasm



An alternative spliced form of the protein tyrosine phosphatase, PTP61FC (PTP61F isoform 2) is active in the nucleus and dephosphorylates the phosphorylated STAT92E dimer on Tyr711 resulting in its dissociation.

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Kuttenkeuler, D., Boutros, M., Zeidler, MP., Müller, P., Gesellchen, V. (2005). Identification of JAK/STAT signalling components by genome-wide RNA interference. *Nature, 436*, 871-5. ↗

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Editions

2006-11-02	Authored	Williams, MG.
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Table of Contents