PTPNs gene transcription and translation

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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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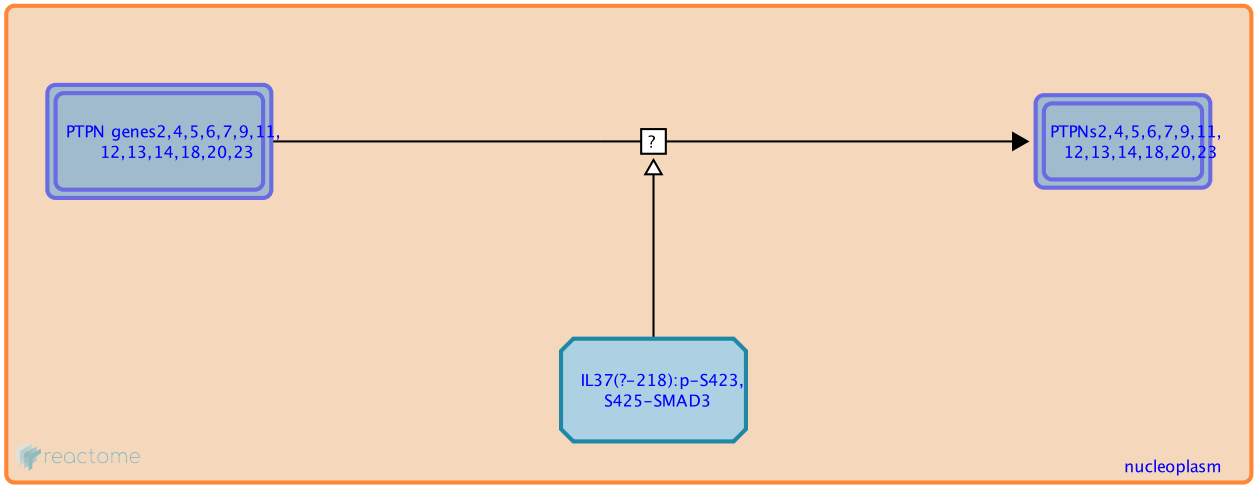
Stable identifier: R-HSA-9008894

Type: uncertain

Compartments: nucleoplasm



Tyrosine protein phosphatase non receptors (PTPNs) are a family of enzymes that act in coordination with protein tyrosine kinases to control various signalling pathways downstream. This event represents the transcription and translation of the PTPN set comprising the members: 2, 4, 5, 6, 7, 9, 11, 12, 13, 14, 18, 20 and 23. This event is positively regulated by IL-37b(? 218):SMAD3 and promotes dephosphorylation and suppression of the activation of tyrosine phosphorylation-dependent signaling pathways such as ERK, p38 MAPK, JNK, PI3K, NF-κB, and STAT3 pathways. (Luo et al., 2017).

Literature references

Luo, C., Shu, Y., Luo, J., Liu, D., Huang, DS., Han, Y. et al. (2017). Intracellular IL-37b interacts with Smad3 to suppress multiple signaling pathways and the metastatic phenotype of tumor cells. *Oncogene, 36*, 2889-2899. ↗

Editions

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