Phosphorylated STAT3 Dimer Translocates to the Nucleus

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics, 18*, 142. ↗

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

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. ↗

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. ↗

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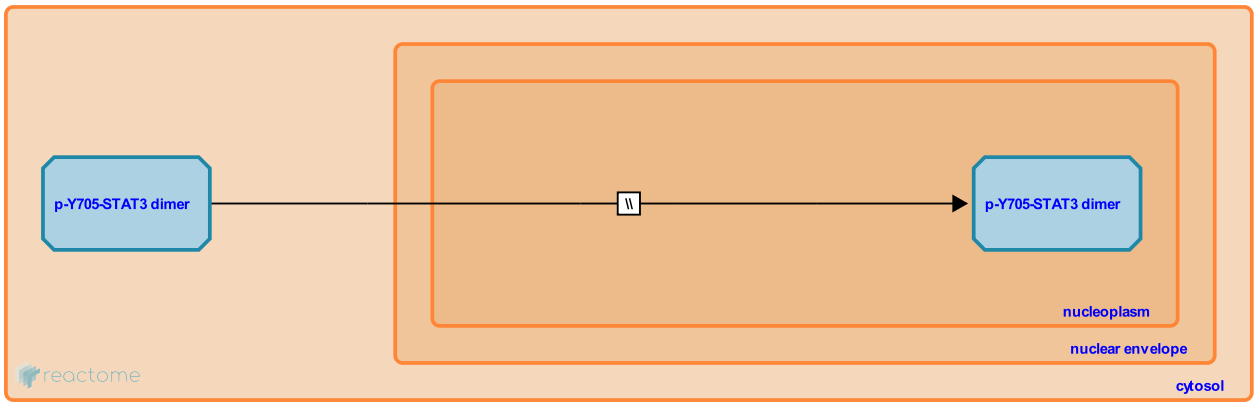
Stable identifier: R-HSA-2730599

Type: omitted

Compartments: cytosol, nucleoplasm

Inferred from: Phosphorylated Stat3 Dimer Translocates to the Nucleus (Mus musculus)



As inferred from mouse, both non-phosphorylated and phosphorylated STAT3 are imported and exported from the nucleus. Phosphorylation shifts the equilibrium distribution of STAT3 to the nucleus.

Editions

2012-12-03	Authored, Edited	May, B.
2013-08-31	Reviewed	Scherer, T.
2013-10-26	Reviewed	Gonzalez-Perez, RR.
2016-02-07	Reviewed	Pires, IM.
2016-07-11	Reviewed	Birchmeier, W., Heynen, G.