

Phosphorylation of L1 by p90rsk

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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. [↗](#)

Reactome database release: 70

This document contains 1 reaction ([see Table of Contents](#))

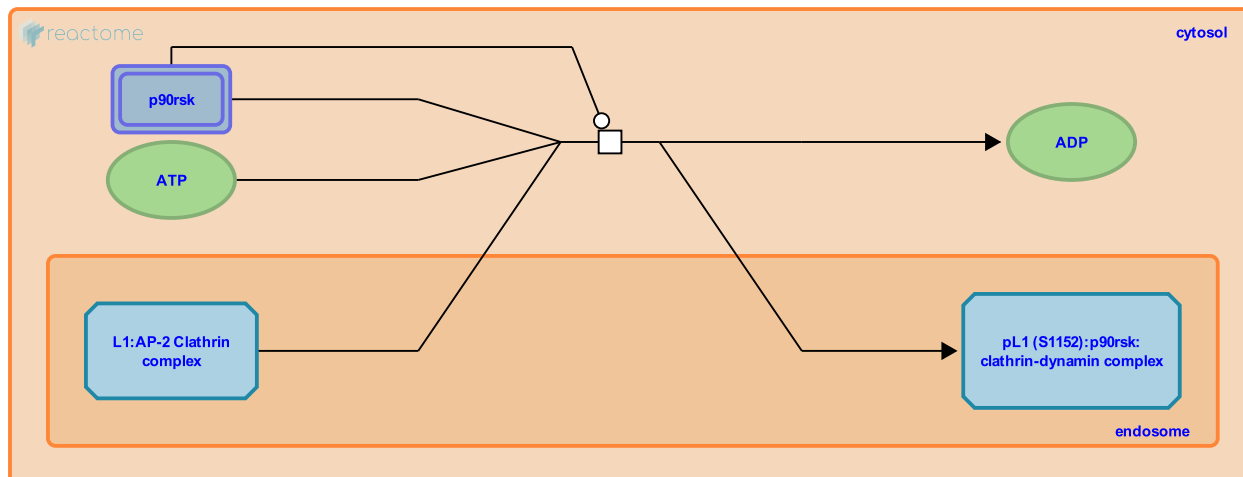
Phosphorylation of L1 by p90rsk ↗

Stable identifier: R-HSA-374696

Type: transition

Compartments: cytosol

Inferred from: Phosphorylation of L1 by p90rsk (Homo sapiens)



p90rsk associates with the internalized L1 in the endosomes and phosphorylates it at Ser1152. This phosphorylation may regulate the interactions of L1 and intracellular signaling cascades or cytoskeletal elements involved in neurite outgrowth on specific substrates.

Editions

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|------------|------------------|----------------|
| 2008-07-30 | Authored, Edited | Garapati, P V. |
| 2010-02-16 | Reviewed | Maness, PF. |