PI4P is dephosphorylated to PI by SACM1L at the Golgi membrane

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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. ↗

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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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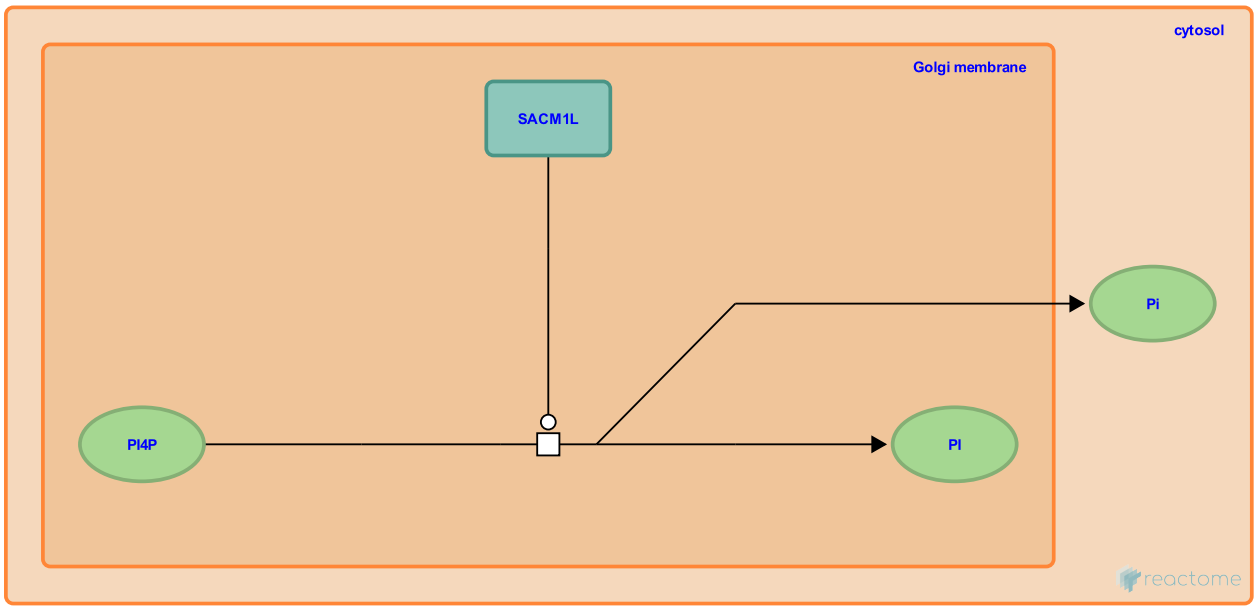
Stable identifier: R-HSA-1676133

Type: transition

Compartments: Golgi membrane, cytosol



At the Golgi membrane, phosphatidylinositide phosphatase SAC1 (SACM1L) efficiently dephosphorylates phosphatidylinositol 4-phosphate (PI4P), and to a lesser extent phosphatidylinositol 3-phosphate (PI3P), to phosphatidylinositol (PI). No significant activity of this enzyme towards phosphatidylinositol 3,5-bisphosphate (PI(3,5)P2) was detected (Rohde et al. 2003).

Literature references

Rohde, HM., Cheong, FY., Konrad, G., Paiha, K., Mayinger, P., Boehmelt, G. (2003). The human phosphatidylinositol phosphatase SAC1 interacts with the coatomer I complex. *J Biol Chem, 278*, 52689-99. ↗

Editions

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