PI3P is phosphorylated to PI(3,5)P2 by Pikfyve at the early endosome 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

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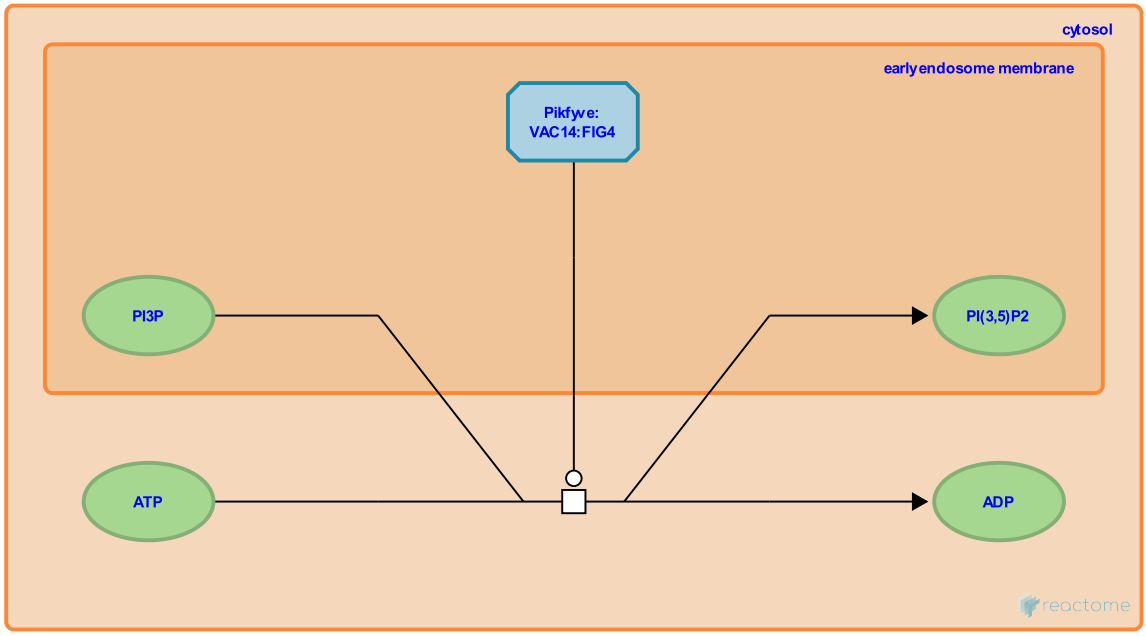
Stable identifier: R-NUL-1675886

Type: transition

Compartments: early endosome membrane, cytosol



At the early endosome membrane, the PAS complex, consisting of mouse FYVE finger-containing phosphoinositide kinase (Pikfyve), yeast VAC14 homologue (VAC14), and polyphosphoinositide phosphatase aka SAC3 (FIG4), binds to the membrane via Pikfyve's FYVE finger (Sbrissa et al. 2002, Cao et al. 2007). The Pikfyve kinase component phosphorylates phosphatidylinositol 3-phosphate (PI3P) to phosphatidylinositol 3,5-bisphosphate PI(3,5)P2 (Sbrissa et al. 1999). The PAS complex is present in the cytosol and is recruited to the membrane (Sbrissa et al. 2007).

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Editions

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