PI5P is phosphorylated to PI(4,5)P2 by PIP4K2 dimers at the plasma membrane

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02/05/2024

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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references

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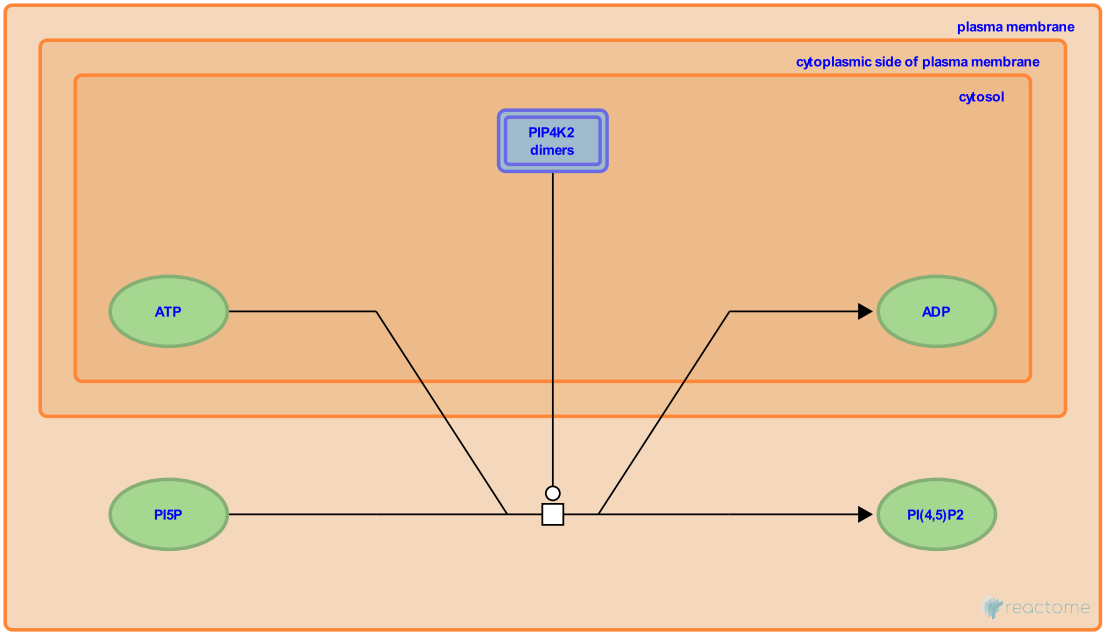
Stable identifier: R-HSA-1675776

Type: transition

Compartments: plasma membrane, cytosol



At the plasma membrane, phosphatidylinositol-5-phosphate 4-kinase type-2 alpha (PIP4K2A), beta (PIP4K2B) and gamma (PIP4K2C) homodimers and heterodimers (Clarke et al. 2010, Clarke and Irvine 2013, Clarke et al. 2015) phosphorylate phosphatidylinositol 5-phosphate (PI5P) to phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2).

The following lists the above proteins with their corresponding literature references: PIP4K2A (Rameh et al. 1997, Clarke et al. 2008, Clarke and Irvine 2013), PIP4K2B (Rameh et al. 1997, Clarke and Irvine 2013) and PIP4K2C (Clarke and Irvine 2013, Clarke et al. 2015).

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Editions

2011-08-12	Edited	Williams, MG.
2011-10-18	Authored	Williams, MG.
2012-05-14	Reviewed	Wakelam, M.
2016-02-08	Reviewed	Porteu, F.