

PI(3,5)P₂ is dephosphorylated to PI5P by MTMR9-bound MTMR6 or MTMR8 at the plasma 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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Reactome database release: 76

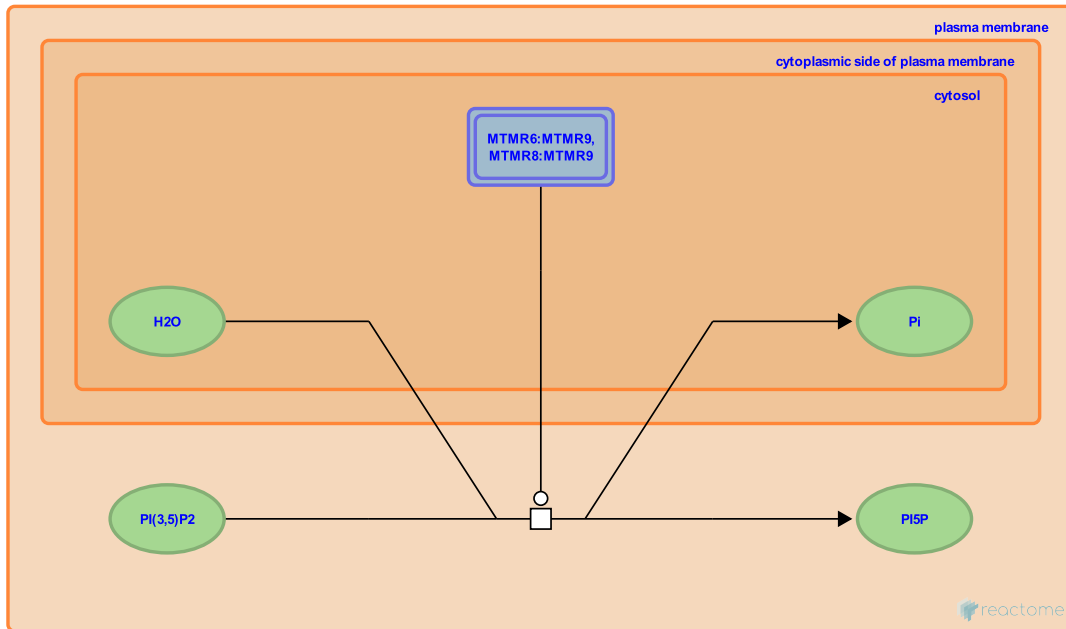
This document contains 1 reaction ([see Table of Contents](#))

PI(3,5)P2 is dephosphorylated to PI5P by MTMR9-bound MTMR6 or MTMR8 at the plasma membrane ↗

Stable identifier: R-HSA-6809320

Type: transition

Compartments: plasma membrane, cytosol



Formation of a complex with MTMR9 results in a 30-fold increase of phosphatidylinositol-(3,5)-bisphosphate 3-phosphatase catalytic activity of MTMR6 and a modest increase in the catalytic activity of MTMR8 (Zou et al. 2009, Zou et al. 2012).

Literature references

Zou, J., Chang, SC., Marjanovic, J., Majerus, PW. (2009). MTMR9 increases MTMR6 enzyme activity, stability, and role in apoptosis. *J. Biol. Chem.*, 284, 2064-71. ↗

Zou, J., Zhang, C., Marjanovic, J., Kisseleva, MV., Majerus, PW., Wilson, MP. (2012). Myotubularin-related protein (MTMR) 9 determines the enzymatic activity, substrate specificity, and role in autophagy of MTMR8. *Proc. Natl. Acad. Sci. U.S.A.*, 109, 9539-44. ↗

Editions

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