

# PI(3,5)P<sub>2</sub> is dephosphorylated to PI5P by SYNJ/MTMs 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

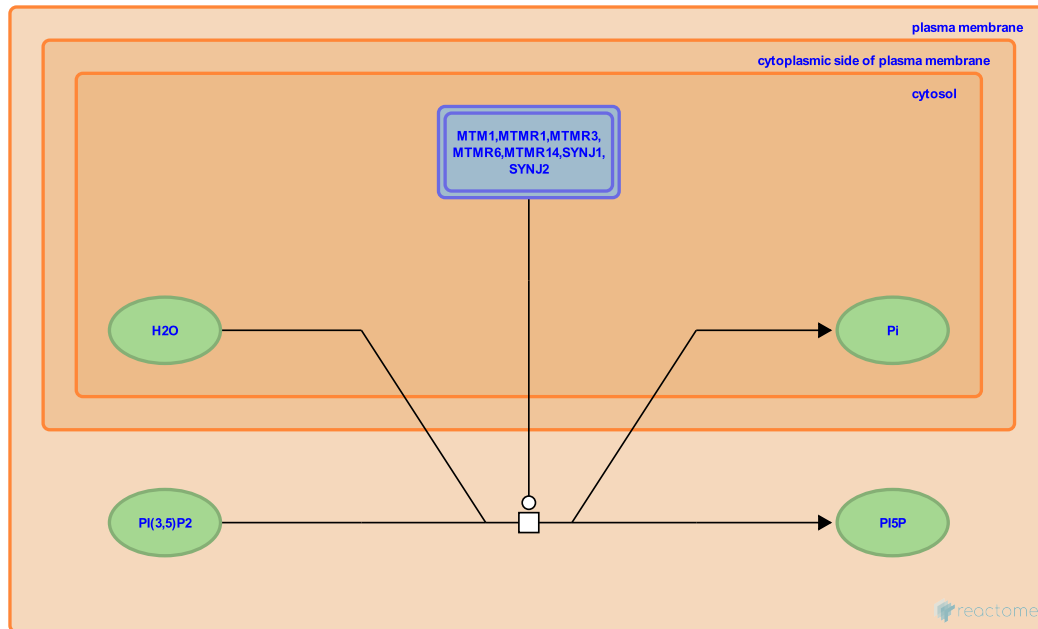
This document contains 1 reaction ([see Table of Contents](#))

## PI(3,5)P2 is dephosphorylated to PI5P by SYNJ/MTMs at the plasma membrane [↗](#)

**Stable identifier:** R-HSA-1676203

**Type:** transition

**Compartments:** plasma membrane, cytosol



At the plasma membrane, synaptojanin-1 aka Synaptic inositol-1,4,5-trisphosphate 5-phosphatase 1 (SYNJ1) (Guo et al. 1999), -2 (SYNJ2) and some myotubularins (MTMs) dephosphorylate phosphatidylinositol 3,5-bisphosphate (PI(3,5)P2) to phosphatidylinositol 5-phosphate (PI5P). The MTMs involved are: myotubularin (MTM1) (Cao et al. 2007, Tronchere et al. 2004, Schaletzky et al. 2003, Laporte et al. 2002) and myotubularin-related proteins 1 (MTMR1) (Tronchere et al. 2004), 3 (MTMR3) (Walker et al. 2001, Lorenzo et al. 2005), 6 (MTMR6) (Schaletzky et al. 2003, Choudhury et al. 2006), and 14 (MTMR14) (Tosch et al. 2006).

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## Editions

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