

**sphinganine 1-phosphate + H<sub>2</sub>O =>**  
**sphinganine + orthophosphate**

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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.

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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Reactome database release: 70

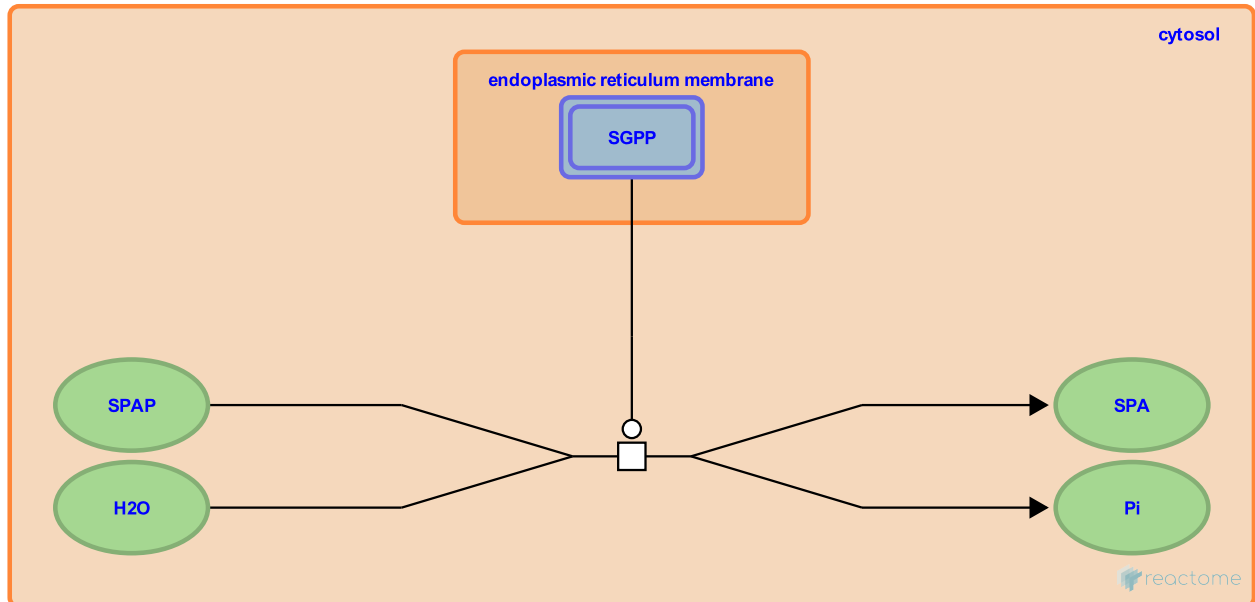
This document contains 1 reaction ([see Table of Contents](#))

## sphinganine 1-phosphate + H2O => sphinganine + orthophosphate ↗

**Stable identifier:** R-HSA-428664

**Type:** transition

**Compartments:** cytosol, endoplasmic reticulum membrane



SGPP1 and 2 (sphingosine-1-phosphate phosphatase 1 and 2) enzymes associated with the endoplasmic reticulum membrane catalyze the hydrolysis of cytosolic sphinganine 1-phosphate to form sphinganine (dihydro sphingosine) and orthophosphate (Johnson et al. 2003; Ogawa et al. 2003).

### Literature references

Ogawa, C., Kihara, A., Gokoh, M., Igarashi, Y. (2003). Identification and characterization of a novel human sphingosine-1-phosphate phosphohydrolase, hSPP2. *J Biol Chem*, 278, 1268-72. ↗

Johnson, KR., Johnson, KY., Becker, KP., Bielawski, J., Mao, C., Obeid, LM. (2003). Role of human sphingosine-1-phosphate phosphatase 1 in the regulation of intra- and extracellular sphingosine-1-phosphate levels and cell viability. *J Biol Chem*, 278, 34541-7. ↗

### Editions

2009-08-20	Authored, Edited	D'Eustachio, P.
2009-08-20	Reviewed	Jassal, B.
2009-11-18	Reviewed	Hannun, YA., Luberto, C.