PLC-gamma1 hydrolyses PIP2

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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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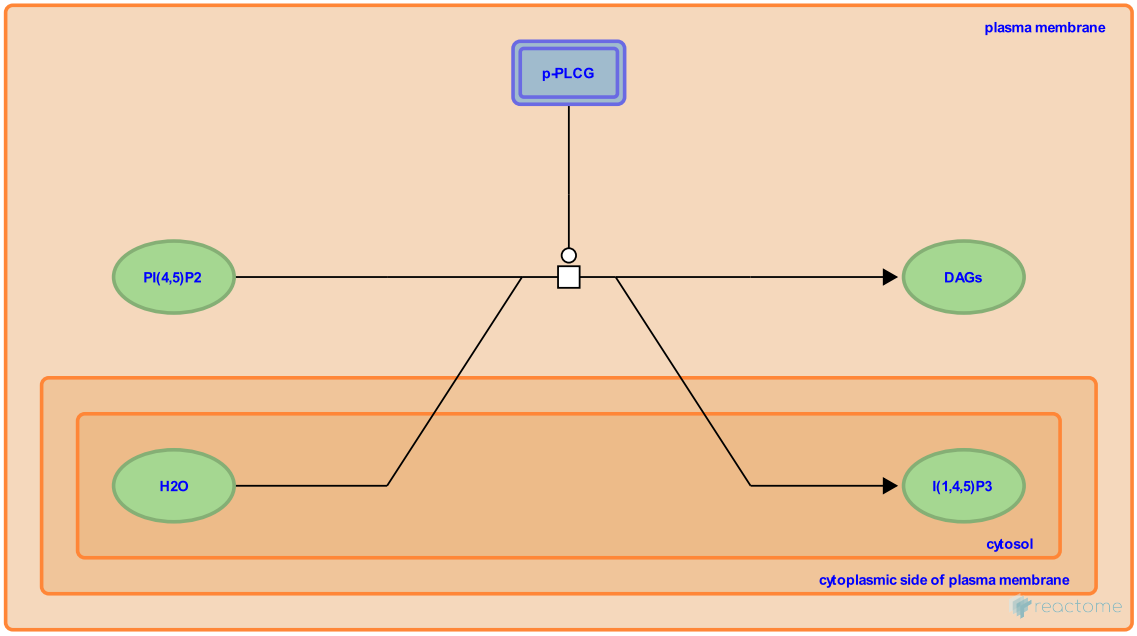
Stable identifier: R-HSA-202407

Type: transition

Compartments: cytosol, plasma membrane



On recruitment to plasma membrane PLC-gamma1 then hydrolyses PIP2 producing two second messengers, diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). IP3 induces a transient increase in intracellular free Ca++, while DAG is a direct activator of protein kinase C (PKC theta). These process have been implicated in many cellular physiological functions like cell proliferation, cell growth and differentiation.

Literature references

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Editions

2008-01-24	Authored	de Bono, B., Garapati, P V., Rudd, C.E..
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