

# Diacylglycerol activates Protein kinase C, alpha type

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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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Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467. [↗](#)

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Reactome database release: 88

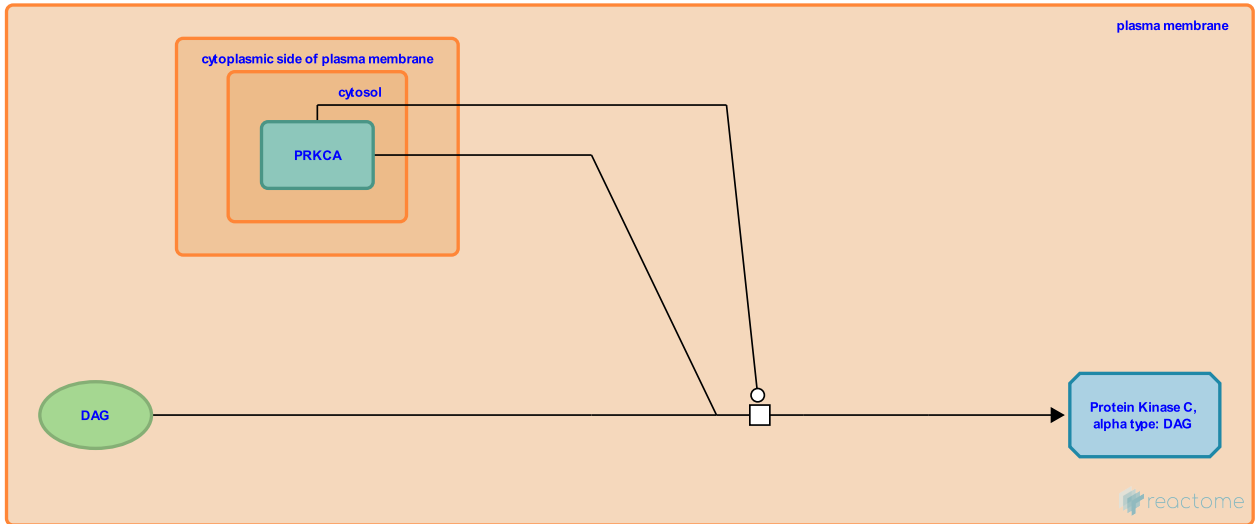
This document contains 1 reaction ([see Table of Contents](#))

# Diaclycerol activates Protein kinase C, alpha type [↗](#)

**Stable identifier:** R-HSA-400015

**Type:** transition

**Compartments:** plasma membrane, cytosol



Diacylglycerol, produced by PLC beta-mediated PIP2 hydrolysis in G alpha (q) signalling, remains in the plasma membrane and binds Protein Kinase C alpha (PKC-alpha), causing PKC-alpha to translocate from the cytosol to the plasma membrane. PKC-alpha is thereby activated and phosphorylates target proteins.

## Literature references

Hashimoto, N., Nezu, A., Tanimura, A., Tojyo, Y., Morita, T. (2002). Interplay between calcium, diacylglycerol, and phosphorylation in the spatial and temporal regulation of PKCalpha-GFP. *J. Biol. Chem.*, 277, 29054-62. [↗](#)

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## Editions

2009-05-28	Authored, Edited	May, B.
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