

# FNTA:FNTB transfers FARN to GNGT1

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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: 88

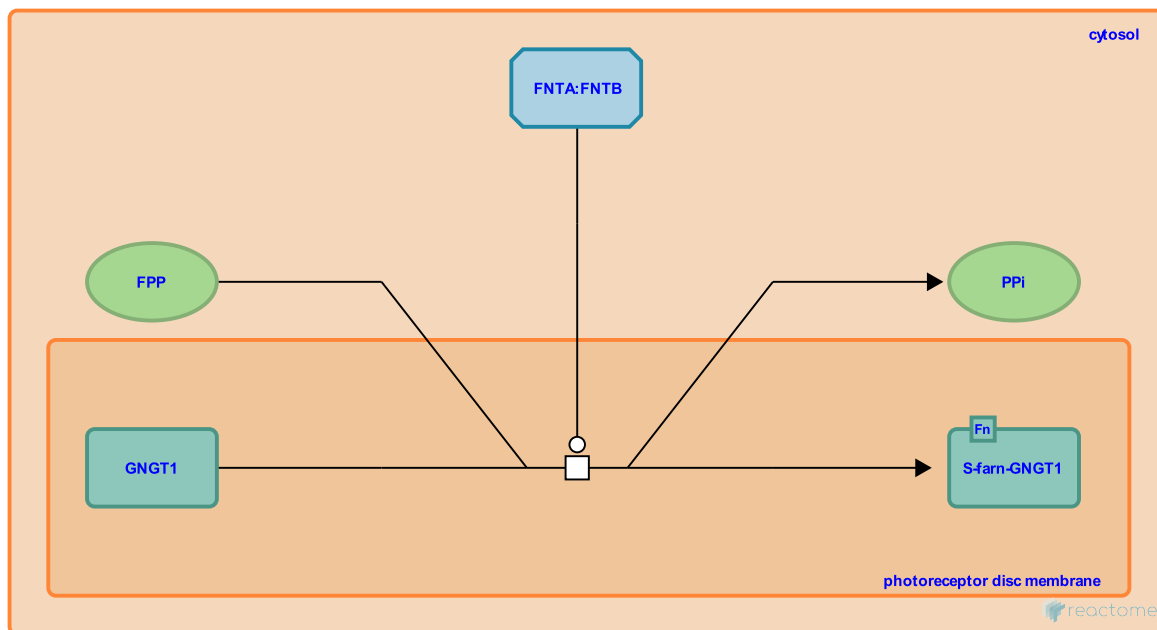
This document contains 1 reaction ([see Table of Contents](#))

## FNTA:FNTB transfers FARN to GNGT1 [↗](#)

**Stable identifier:** R-HSA-2530501

**Type:** transition

**Compartments:** photoreceptor disc membrane, cytosol



Prenylation is the process of post-translational addition of hydrophobic groups to proteins and is thought to help anchor proteins to cellular membranes. Farnesylation is a type of prenylation, where a farnesyl group (donated from farnesyl diphosphate, FPP) is added to a cysteine residue on a protein. The enzyme mediating this transfer is farnesyltransferase (FNT). FNT is a heterodimer comprising an alpha subunit (common to another prenylating enzyme called geranylgeranyltransferase, GGT) and a unique beta subunit (Long et al. 2001, Bell et al. 2002, deSolms et al. 2003). This complex recognises the CAAX box (C is the cysteine, A is any aliphatic amino acid, and X determines which enzyme acts on the protein) at the C-terminus of the target protein, in this case, the gamma subunit of transducin (GNG1) (Omer et al. 1993).

### Literature references

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### Editions

2012-10-17	Authored, Edited	Jassal, B.
2013-04-11	Reviewed	Makino, C.