FITM1, FITM2 bind TAGs

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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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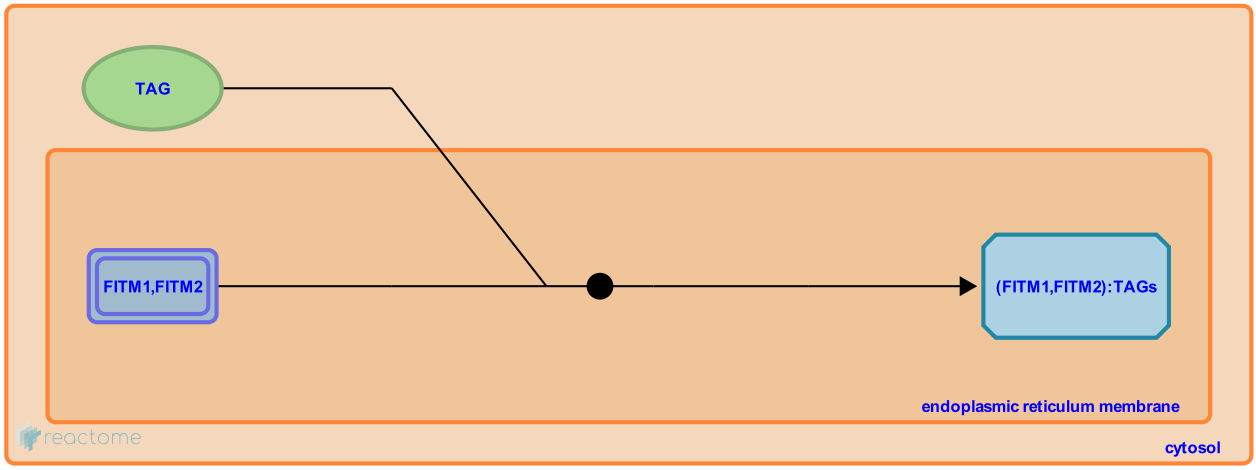
Stable identifier: R-HSA-8857686

Type: binding

Compartments: endoplasmic reticulum membrane, cytosol



Lipid droplets (LDs) are cytosolic structures found in cells of all eukaryotes, comprising a monolayer of phospholipids surrounding a core of uncharged lipids such as triglyceride (TAG) and sterol esters. They play an important role in both cellular physiology and disease. LD formation involves the partitioning of neutral lipids from their site of synthesis at the endoplasmic reticulum (ER) to the cytosol. The fat storage-inducing transmembrane proteins 1 and 2 (FITM1 and FITM2) belong to an evolutionarily-conserved gene family which mediates LD formation (Kadereit et al. 2008, Gross et al. 2011). FITM1 and FITM2 are ER membrane associated proteins that mediate binding and partitioning of TAGs into LDs (Gross et al. 2011, Miranda et al. 2014). In mammals, FITM1 is expressed primarily in skeletal muscle whereas FITM2 is expressed primarily in adipose tissue, suggesting these proteins may have unique functions (Gross et al. 2011).

Literature references

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Editions

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