10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-Tafazzin Antibody

Peptide-affinity purified goat antibody

Catalog # AF2062a

Specification

Goat Anti-Tafazzin Antibody - Product Information

Application	**WB, E**
Primary Accession	Q16635
Other Accession	NP_851830, 6901
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**30203**

Goat Anti-Tafazzin Antibody - Additional Information

Gene ID 6901

Other Names
Tafazzin, Protein G4.5, TAZ, EFE2, G4.5

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Tafazzin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Tafazzin Antibody - Protein Information

Name TAFAZZIN (HGNC:11577)

Function
Acyltransferase required to remodel newly synthesized phospholipid cardiolipin (1',3'-bis-[1,2-diacyl-sn-glycero-3-phospho]- glycerol or CL), a key component of the mitochondrial

inner membrane, with tissue specific acyl chains necessary for adequate mitochondrial function (PubMed:12930833, PubMed:19164547, PubMed:19700766, PubMed:26908608, PubMed:33096711). Its role in cellular physiology is to improve mitochondrial performance (PubMed:32234310). CL is critical for the coassembly of lipids and proteins in mitochondrial membranes, for instance, remodeling of the acyl groups of CL in the mitochondrial inner membrane affects the assembly and stability of respiratory chain complex IV and its supercomplex forms (By similarity). Catalyzes the transacylation between phospholipids and lysophospholipids, with the highest rate being between phosphatidylcholine (1,2-diacyl-sn-glycero- 3-phosphocholine or PC) and CL. Catalyzes both 1-acyl-sn-glycero-3- phosphocholine (lysophosphatidylcholine or LPC) reacylation and PC-CL transacylation, that means, it exchanges acyl groups between CL and PC by a combination of forward and reverse transacylations. Also catalyzes transacylations between other phospholipids such as phosphatidylethanolamine (1,2-diacyl-sn-glycero-3-phosphoethanolamine or PE) and CL, between PC and PE, and between PC and phosphatidate (1,2-diacyl-sn-glycero-3-phosphate or PA), although at lower rate. Not regiospecific, it transfers acyl groups into any of the sn-1 and sn-2 positions of the monolysocardiolipin (MLCL), which is an important prerequisite for uniformity and symmetry in CL acyl distribution. Cannot transacylate dilysocardiolipin (DLCL), thus, the role of MLCL is limited to that of an acyl acceptor. CoA-independent, it can reshuffle molecular species within a single phospholipid class. Redistributes fatty acids between MLCL, CL, and other lipids, which prolongs the half-life of CL. Its action is completely reversible, which allows for cyclic changes, such as fission and fusion or bending and flattening of the membrane. Hence, by contributing to the flexibility of the lipid composition, it plays an important role in the dynamics of mitochondria membranes. Essential for the final stage of spermatogenesis, spermatid individualization (By similarity). Required for the initiation of mitophagy (PubMed:33096711). Required to ensure progression of spermatocytes through meiosis (By similarity). Exon 7 of human tafazzin is essential for catalysis (PubMed:19700766).

Cellular Location
Mitochondrion outer membrane; Peripheral membrane protein; Intermembrane side. Mitochondrion inner membrane; Peripheral membrane protein; Intermembrane side [Isoform 2]: Cytoplasm. [Isoform 5]: Mitochondrion membrane [Isoform 7]: Mitochondrion membrane [Isoform 9]: Cytoplasm.

Tissue Location
High levels in cardiac and skeletal muscle. Up to 10 isoforms can be present in different amounts in different tissues Most isoforms are ubiquitous. Isoforms that lack the N-terminus are found in leukocytes and fibroblasts, but not in heart and skeletal muscle. Some forms appear restricted to cardiac and skeletal muscle or to leukocytes

Goat Anti-Tafazzin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

- Flow Cytomety
- Cell Culture

Goat Anti-Tafazzin Antibody - Images

AF2062a (0.3 µg/ml) staining of Human Heart lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Tafazzin Antibody - Background

This gene encodes a protein that is expressed at high levels in cardiac and skeletal muscle. Mutations in this gene have been associated with a number of clinical disorders including Barth syndrome, dilated cardiomyopathy (DCM), hypertrophic DCM, endocardial fibroelastosis, and left ventricular noncompaction (LVNC). Multiple transcript variants encoding different isoforms have been described. A long form and a short form of each of these isoforms is produced; the short form lacks a hydrophobic leader sequence and may exist as a cytoplasmic protein rather than being membrane-bound. Other alternatively spliced transcripts have been described but the full-length nature of all these transcripts is not known.

Goat Anti-Tafazzin Antibody - References

A novel custom resequencing array for dilated cardiomyopathy. Zimmerman RS, et al. Genet Med, 2010 May. PMID 20474083.
Human transcriptional coactivator with PDZ-binding motif (TAZ) is downregulated during decidualization. Strakova Z, et al. Biol Reprod, 2010 Jun. PMID 20164440.
Characterization of tafazzin splice variants from humans and fruit flies. Xu Y, et al. J Biol Chem, 2009 Oct 16. PMID 19700766.
Mutations in TAZ/WWTR1, a co-activator of NKX2.1 and PAX8 are not a frequent cause of thyroid dysgenesis. Ferrara AM, et al. J Endocrinol Invest, 2009 Mar. PMID 19542741.
TEAD transcription factors mediate the function of TAZ in cell growth and epithelial-mesenchymal transition. Zhang H, et al. J Biol Chem, 2009 May 15. PMID 19324877.