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TAZ Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP8803a

Specification

TAZ Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q16635

TAZ Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 6901

Other Names
Tafazzin, Protein G45, TAZ, EFE2, G45

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8803a was selected from the N-term region of human TAZ. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TAZ Antibody (N-term) Blocking Peptide - 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:19700766, PubMed:19164547, 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

TAZ Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

TAZ Antibody (N-term) Blocking Peptide - Images

TAZ Antibody (N-term) Blocking Peptide - Background

TAZ is a protein that is expressed at high levels in cardiac and skeletal muscle.

TAZ Antibody (N-term) Blocking Peptide - References

Gedeon,A.K., et.al., J. Med. Genet. 32 (5), 383-388 (1995)Bione,S., et.al., Nat. Genet. 12 (4), 385-389 (1996)