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

TAZ Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8803a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q16635
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21836
Calculated MW	30203
Antigen Region	32-60

Additional Information

Gene ID	6901
Other Names	Tafazzin, Protein G45, TAZ, EFE2, G45
Target/Specificity	This TAZ antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 32-60 amino acids from the N-terminal region of human TAZ.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TAZ Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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

Background

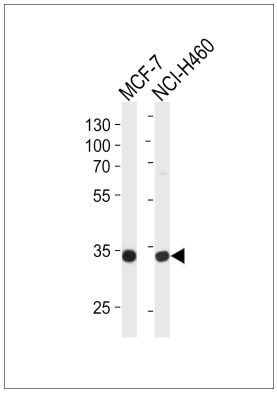
TAZ is a protein that is expressed at high levels in cardiac and skeletal muscle.

References

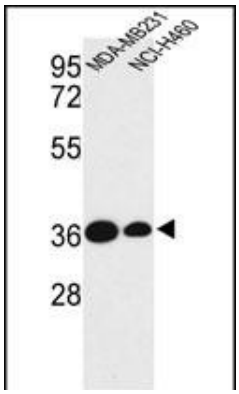
Gedeon,A.K., et.al., J. Med. Genet. 32 (5), 383-388 (1995) Bione,S., et.al., Nat. Genet. 12 (4), 385-389 (1996)

Images

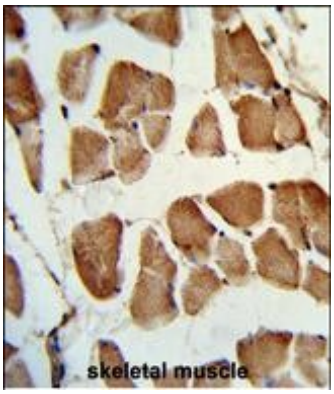
Western blot analysis of lysates from MCF-7, NCI-H460



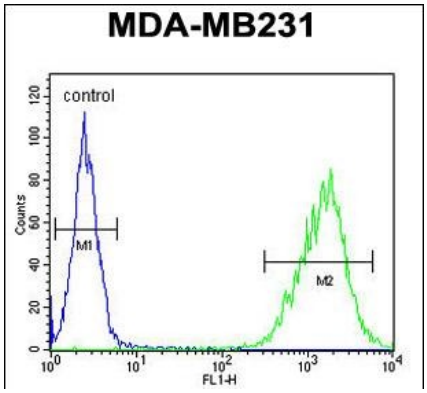
cell line (from left to right), using TAZ Antibody (N-term)(Cat. #AP8803a). AP8803a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



Western blot analysis of TAZ Antibody (N-term) (Cat. #AP8803a) in MDA-MB231, NCI-H460 cell line lysates (35ug/lane). TAZ (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with TAZ Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



TAZ Antibody (N-term) (Cat. #AP8803a) flow cytometric analysis of MDA-MB231 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.