

Goat Anti-TXNDC1 / TMX Antibody
Peptide-affinity purified goat antibody
Catalog # AF2125a**Specification**

Goat Anti-TXNDC1 / TMX Antibody - Product Information

Application	WB, IHC, E
Primary Accession	O9H3N1
Other Accession	NP_110382 , 81542
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	31791

Goat Anti-TXNDC1 / TMX Antibody - Additional Information**Gene ID** 81542**Other Names**Thioredoxin-related transmembrane protein 1, Thioredoxin domain-containing protein 1,
Transmembrane Trx-related protein, TMX1, TMX, TXNDC, TXNDC1**Dilution**WB~~1:1000
IHC~~1:100~500
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-TXNDC1 / TMX Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-TXNDC1 / TMX Antibody - Protein Information**Name** TMX1 {ECO:0000303|PubMed:37648867, ECO:0000312|HGNC:HGNC:15487}**Function**

Thioredoxin domain-containing protein that participates in various redox reactions through the

reversible oxidation of its active center dithiol to a disulfide and catalyze dithiol-disulfide exchange reactions (PubMed: [11152479](http://www.uniprot.org/citations/11152479), PubMed: [37648867](http://www.uniprot.org/citations/37648867)). Acts as a key inhibitor of the alternative triglyceride biosynthesis pathway by inhibiting the activity of TMEM68/DIESL at the endoplasmic reticulum, thereby restricting accumulation of triacylglycerol (PubMed: [37648867](http://www.uniprot.org/citations/37648867)). The alternative triglyceride biosynthesis pathway mediates formation of triacylglycerol from diacylglycerol and membrane phospholipids (PubMed: [37648867](http://www.uniprot.org/citations/37648867)). Acts as a protein disulfide isomerase by catalyzing formation or reduction of disulfide bonds (PubMed: [22228764](http://www.uniprot.org/citations/22228764), PubMed: [29932915](http://www.uniprot.org/citations/29932915)). Specifically mediates formation of disulfide bonds of transmembrane proteins at the endoplasmic reticulum membrane (PubMed: [22228764](http://www.uniprot.org/citations/22228764)). Involved in endoplasmic reticulum-associated degradation (ERAD) via its protein disulfide isomerase activity by acting on folding-defective polypeptides at the endoplasmic reticulum membrane (PubMed: [29932915](http://www.uniprot.org/citations/29932915)). Acts as a negative regulator of platelet aggregation following secretion in the extracellular space (PubMed: [30425049](http://www.uniprot.org/citations/30425049)). Acts as a regulator of endoplasmic reticulum- mitochondria contact sites via its ability to regulate redox signals (PubMed: [27502484](http://www.uniprot.org/citations/27502484), PubMed: [31304984](http://www.uniprot.org/citations/31304984)). Regulates endoplasmic reticulum- mitochondria Ca(2+) flux (PubMed: [27502484](http://www.uniprot.org/citations/27502484)).

Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein. Mitochondrion membrane; Single-pass type I membrane protein. Secreted. Note=Predominantly found in the endoplasmic reticulum (PubMed:11152479). Secreted in the extracellular space following thrombin stimulation (PubMed:30425049). Localizes to mitochondria-associated endoplasmic reticulum membrane (MAM); palmitoylation is required for MAM localization (PubMed:22045338, PubMed:27502484, PubMed:31304984).

Tissue Location

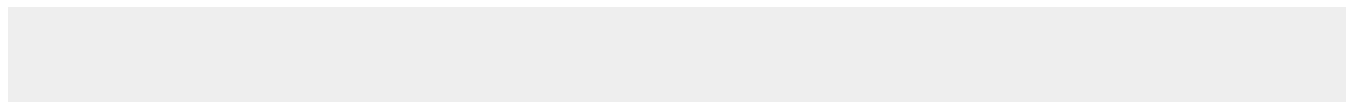
Ubiquitous (PubMed:11152479). Highly expressed in kidney, liver, placenta and lung (PubMed:11152479)

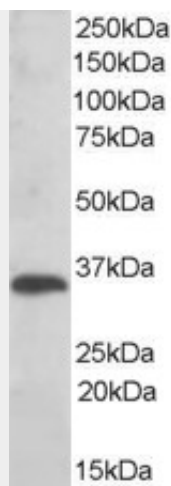
Goat Anti-TXNDC1 / TMX Antibody - Protocols

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

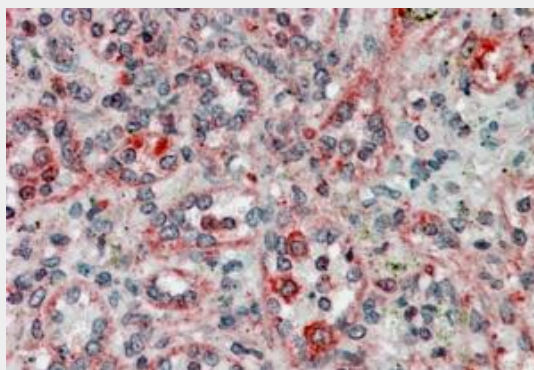
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-TXNDC1 / TMX Antibody - Images





AF2125a (0.01 µg/ml) staining of human liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF2125a (3.8 µg/ml) staining of paraffin embedded Human Spleen Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-TXNDC1 / TMX Antibody - Background

TXNDC1 is a thioredoxin (TXN; see MIM 187700)-related protein with disulfide reductase activity (Matsuo et al., 2001 [PubMed 11152479]).

Goat Anti-TXNDC1 / TMX Antibody - References

Physical and functional interaction of transmembrane thioredoxin-related protein with major histocompatibility complex class I heavy chain: redox-based protein quality control and its potential relevance to immune responses. Matsuo Y, et al. Mol Biol Cell, 2009 Nov. PMID 19741092.

Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. Mol Cell Proteomics, 2008 Mar. PMID 18029348.

Global, in vivo, and site-specific phosphorylation dynamics in signaling networks. Olsen JV, et al. Cell, 2006 Nov 3. PMID 17081983.

Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. Kimura K, et al. Genome Res, 2006 Jan. PMID 16344560.

Signal sequence and keyword trap in silico for selection of full-length human cDNAs encoding secretion or membrane proteins from oligo-capped cDNA libraries. Otsuki T, et al. DNA Res, 2005. PMID 16303743.