

**TMP21 / TMED10 Antibody (C-Term)**  
Peptide-affinity purified goat antibody  
Catalog # AF2559a**Specification****TMP21 / TMED10 Antibody (C-Term) - Product Information**

Application	E
Primary Accession	<a href="#">P49755</a>
Other Accession	<a href="#">NP_006818.3</a> , <a href="#">10972</a> , <a href="#">68581 (mouse)</a> , <a href="#">84599 (rat)</a>
Predicted Host	Human, Mouse, Rat, Dog
Clonality	Goat
Concentration	Polyclonal
Isotype	0.5 mg/ml
Calculated MW	IgG
	24976

**TMP21 / TMED10 Antibody (C-Term) - Additional Information**

Gene ID 10972

**Other Names**

Transmembrane emp24 domain-containing protein 10, 21 kDa transmembrane-trafficking protein, S31III125, S31I125, Tmp-21-I, Transmembrane protein Tmp21, p23, p24 family protein delta-1, p24delta1, p24delta, TMED10, TMP21

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 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**

TMP21 / TMED10 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

**TMP21 / TMED10 Antibody (C-Term) - Protein Information**

Name TMED10 ([HGNC:16998](#))

Synonyms TMP21

**Function**

Cargo receptor involved in protein vesicular trafficking and quality control in the endoplasmic reticulum (ER) and Golgi (PubMed: <http://www.uniprot.org/citations/10052452> target="\_blank">10052452</a>, PubMed: <http://www.uniprot.org/citations/11726511>)

target="\_blank">11726511</a>, PubMed:<a href="http://www.uniprot.org/citations/16641999" target="\_blank">16641999</a>, PubMed:<a href="http://www.uniprot.org/citations/17288597" target="\_blank">17288597</a>, PubMed:<a href="http://www.uniprot.org/citations/19296914" target="\_blank">19296914</a>, PubMed:<a href="http://www.uniprot.org/citations/20427317" target="\_blank">20427317</a>, PubMed:<a href="http://www.uniprot.org/citations/21219331" target="\_blank">21219331</a>, PubMed:<a href="http://www.uniprot.org/citations/27569046" target="\_blank">27569046</a>). The p24 protein family is a group of transmembrane proteins that bind coat protein complex I/COPI and coat protein complex II/COPII involved in vesicular trafficking between the membranes (PubMed:<a href="http://www.uniprot.org/citations/10052452" target="\_blank">10052452</a>). Acts at the luminal side for incorporation of secretory cargo molecules into transport vesicles and involved in vesicle coat formation at the cytoplasmic side (PubMed:<a href="http://www.uniprot.org/citations/20427317" target="\_blank">20427317</a>, PubMed:<a href="http://www.uniprot.org/citations/27569046" target="\_blank">27569046</a>). Mainly functions in the early secretory pathway and cycles between the ER, ER-Golgi intermediate compartment (ERGIC) and Golgi, mediating cargo transport through COPI and COPII-coated vesicles (PubMed:<a href="http://www.uniprot.org/citations/10052452" target="\_blank">10052452</a>, PubMed:<a href="http://www.uniprot.org/citations/10852829" target="\_blank">10852829</a>, PubMed:<a href="http://www.uniprot.org/citations/12237308" target="\_blank">12237308</a>). In COPII vesicle-mediated anterograde transport, involved in the transport of GPI-anchored proteins by acting together with TMED2 as their cargo receptor; the function specifically implies SEC24C and SEC24D of the COPII vesicle coat and lipid raft-like microdomains of the ER (PubMed:<a href="http://www.uniprot.org/citations/20427317" target="\_blank">20427317</a>, PubMed:<a href="http://www.uniprot.org/citations/27569046" target="\_blank">27569046</a>). Recognizes GPI anchors structural remodeled in the ER by the GPI inositol-deacylase/PGAP1 and the metallophosphoesterase MPPE1/PGAP5 (By similarity). In COPI vesicle-mediated retrograde transport, involved in the biogenesis of COPI vesicles and vesicle coat recruitment (PubMed:<a href="http://www.uniprot.org/citations/11726511" target="\_blank">11726511</a>). Involved in trafficking of amyloid beta A4 protein and soluble APP-beta release (independent from the modulation of gamma-secretase activity) (PubMed:<a href="http://www.uniprot.org/citations/17288597" target="\_blank">17288597</a>). Involved in the KDELR2-mediated retrograde transport of the toxin A subunit (CTX-A- K63) together with COPI and the COOH terminus of KDELR2 (By similarity). On Golgi membranes, acts as a primary receptor for ARF1-GDP, a GTP-binding protein involved in COPI-vesicle formation (PubMed:<a href="http://www.uniprot.org/citations/11726511" target="\_blank">11726511</a>). Increases coatomer-dependent GTPase-activating activity of ARFGAP2 which mediates the hydrolysis of ARF1-bound GTP and therefore modulates protein trafficking from the Golgi apparatus (PubMed:<a href="http://www.uniprot.org/citations/19296914" target="\_blank">19296914</a>). Involved in the exocytic trafficking of G protein-coupled receptors F2LR1/PAR2 (trypsin and trypsin-like enzyme receptor), OPRM1 (opioid receptor) and P2RY4 (UTD and UDP receptor) from the Golgi to the plasma membrane, thus contributing to receptor resensitization (PubMed:<a href="http://www.uniprot.org/citations/21219331" target="\_blank">21219331</a>). In addition to its cargo receptor activity, may also act as a protein channel after oligomerization, facilitating the post-translational entry of leaderless cytoplasmic cargo into the ERGIC (PubMed:<a href="http://www.uniprot.org/citations/32272059" target="\_blank">32272059</a>). Involved in the translocation into ERGIC, the vesicle entry and the secretion of leaderless cargos (lacking the secretion signal sequence), including the mature form of interleukin 1/IL-1 family members, the alpha-crystallin B chain HSPB5, the carbohydrate-binding proteins galectin-1/LGALS1 and galectin-3/LGALS3, the microtubule-associated protein Tau/MAPT, and the annexin A1/ANXA1; the translocation process is dependent on cargo protein unfolding and enhanced by chaperones HSP90AB1 and HSP90B1/GRP9 (PubMed:<a href="http://www.uniprot.org/citations/32272059" target="\_blank">32272059</a>). Could also associates with the presenilin-dependent gamma-secretase complex in order to regulate gamma-cleavages of the amyloid beta A4 protein to yield amyloid-beta 40/Abeta40 (PubMed:<a href="http://www.uniprot.org/citations/16641999" target="\_blank">16641999</a>).

## Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein. Endoplasmic reticulum-Golgi intermediate compartment membrane; Single-pass type I membrane protein. Golgi apparatus membrane; Single-pass type I membrane protein. Golgi apparatus, cis-Golgi network membrane; Single-pass type I membrane protein. Golgi apparatus, trans-Golgi network membrane {ECO:0000250|UniProtKB:Q63584}; Single-pass type I membrane protein. Cytoplasmic vesicle, secretory vesicle membrane; Single-pass type I membrane protein. Cell membrane {ECO:0000250|UniProtKB:Q63584}; Single-pass type I membrane protein. Melanosome  
Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

### **TMP21 / TMED10 Antibody (C-Term) - 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](#)

### **TMP21 / TMED10 Antibody (C-Term) - Images**

### **TMP21 / TMED10 Antibody (C-Term) - References**

TMP21 is a presenilin complex component that modulates gamma-secretase but not epsilon-secretase activity. Chen F, Hasegawa H, Schmitt-Ulms G, Kawarai T, Bohm C, Katayama T, Gu Y, Sanjo N, Glista M, Rogaeva E, Wakutani Y, Pardossi-Piquard R, Ruan X, Tandon A, Checler F, Marambaud P, Hansen K, Westaway D, St George-Hyslop P, Fraser P. Nature. 2006 Apr 27;440(7088):1208-12. PMID: 16641999