



TMP21 Mouse mAb

Catalog No	YP-mAb-19266
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB
Gene Name	TMED10 TMP21
Protein Name	Transmembrane emp24 domain-containing protein 10 (21 kDa transmembrane-trafficking protein) (S3111125) (S311125) (Tmp-21-I) (Transmembrane protein Tmp21) (p23) (p24 family protein delta-1) (p24delta1) (p24delta)
Immunogen	Synthesized peptide derived from human TMP21
Specificity	This antibody detects endogenous levels of TMP21 at Human, Mouse,Rat
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal,Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	
Calculated Molecular Weight	24kD
Cell Pathway	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 ; Single-pass type I membrane protein . Cytoplasmic vesicle, secretory vesicle membrane ; Single-pass type I membrane protein . Cell membrane ; Single-pass type I membrane protein . Melanosome . Identified by mass spectrometry in melanosome fractions from stage I to stage IV. .
Tissue Specificity	
Function	Cargo receptor involved in protein vesicular trafficking and quality control in the endoplasmic reticulum (ER) and Golgi . 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 . Acts



at the luminal side for incorporation of secretory cargo molecules into transport vesicles and involved in vesicle coat formation at the cytoplasmic side . 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 . 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 . 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 . Involved in trafficking of amyloid beta A4 protein and soluble APP-beta release (independent from the modulation of gamma-secretase activity) . Involved in the KDEL2-mediated retrograde transport of the toxin A subunit (CTX-A-K63) together with COPI and the COOH terminus of KDEL2 (By similarity). On Golgi membranes, acts as primary receptor for ARF1-GDP, a GTP-binding protein involved in COPI-vesicle formation . Increases coatome-dependent GTPase-activating activity of ARFGAP2 which mediates the hydrolysis of ARF1-bound GTP and therefore modulates protein trafficking from the Golgi apparatus . 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 . 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 . 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 . 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 .

Background

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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