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TMEM106B Antibody (C-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22247b

Product Information

Application	WB, FC, E
Primary Accession	Q9NUM4
Other Accession	Q3ZC25, Q80X71, Q6AYA5
Reactivity	Human, Mouse
Predicted	Mouse, Rat, Bovine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB56763
Calculated MW	31127

Additional Information

Gene ID	54664
Other Names	Transmembrane protein 106B, TMEM106B
Target/Specificity	This TMEM106B antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 218-252 amino acids from human TMEM106B.
Dilution	WB~~1:2000 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	TMEM106B Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TMEM106B (HGNC:22407)
Function	In neurons, involved in the transport of late endosomes/lysosomes (PubMed:25066864). May be involved in dendrite morphogenesis and maintenance by regulating lysosomal trafficking (PubMed:25066864). May act as a molecular brake for retrograde transport of late endosomes/lysosomes,

	possibly via its interaction with MAP6 (By similarity). In motoneurons, may mediate the axonal transport of lysosomes and axonal sorting at the initial segment (By similarity). It remains unclear whether TMEM106B affects the transport of moving lysosomes in the anterograde or retrograde direction in neurites and whether it is important in the sorting of lysosomes in axons or in dendrites (By similarity). In neurons, may also play a role in the regulation of lysosomal size and responsiveness to stress (PubMed:25066864). Required for proper lysosomal acidification (By similarity).
Cellular Location	Late endosome membrane; Single-pass type II membrane protein. Lysosome membrane; Single-pass type II membrane protein. Cell membrane; Single-pass type II membrane protein. Note=Colocalizes with LAMP1. A small fraction resides on the cell surface (PubMed:37421949).
Tissue Location	Expressed in the brain, including in the frontal cortex (at protein level) (PubMed:35247328, PubMed:35344985). Expressed in lung epithelial cells (PubMed:33686287)

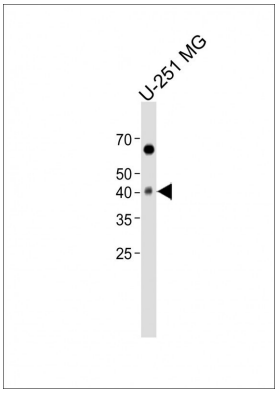
Background

Involved in dendrite morphogenesis and maintenance by regulating lysosomal trafficking via its interaction with MAP6. May act by inhibiting retrograde transport of lysosomes along dendrites. Required for dendrite branching.

References

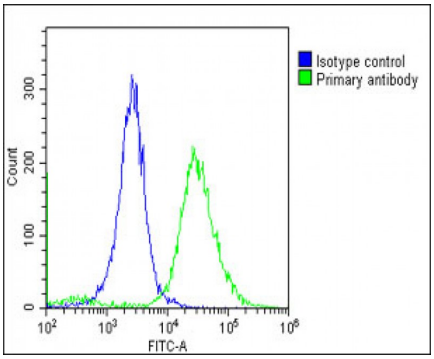
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Suzuki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Scherer S.W.,et al.Science 300:767-772(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 424:157-164(2003).

Images

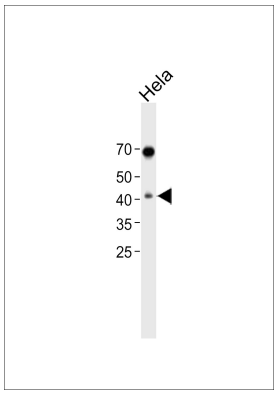


All lanes: Anti-TMEM106B Antibody (C-Term) at 1:1000 dilution + U-251 MG whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 42 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Overlay histogram showing Hela cells stained with AP22247b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22247b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG,



DyLight® 488 Conjugated Highly Cross-Adsorbed(OE188374) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes: Anti-TMEM106B Antibody (C-Term) at 1:1000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 42 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Cleaved TMEM106B forms amyloid aggregates in central and peripheral nervous systems