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

TMEM175 Rabbit pAb

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Catalog # AP57311

Product Information

Application	WB
Primary Accession	Q9BSA9
Reactivity	Rat, Mouse
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55615
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TM175
Epitope Specificity	231-330/504
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	TMEM175 (Transmembrane Protein 175) is a Protein Coding gene.

Additional Information

Gene ID	84286
Other Names	Endosomal/lysosomal proton channel TMEM175, Potassium channel TMEM175, Transmembrane protein 175, hTMEM175, TMEM175 {ECO:0000303|PubMed:26317472, ECO:0000312|HGNC:HGNC:28709}
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TMEM175 {ECO:0000303|PubMed:26317472, ECO:0000312|HGNC:HGNC:28709}
Function	Proton-activated proton channel that catalyzes proton efflux from endosomes and lysosomes to maintain a steady-state pH (PubMed:35333573,

PubMed:35750034, PubMed:37390818). Activated at low pH (under pH 4.6) by luminal side protons: selectively mediates lysosomal proton release from lysosomes, eliciting a proton leak that balances V-ATPase activity to maintain pH homeostasis (PubMed:35750034). Regulation of lumenal pH stability is required for autophagosome-lysosome fusion (PubMed:26317472, PubMed:32267231). Also acts as a potassium channel at higher pH, regulating potassium conductance in endosomes and lysosomes (PubMed:26317472, PubMed:28723891, PubMed:32228865, PubMed:32267231, PubMed:33505021). Constitutes the pore-forming subunit of the lysoK(GF) complex, a complex activated by extracellular growth factors (PubMed:33505021). The lysoK(GF) complex is composed of TMEM175 and AKT (AKT1, AKT2 or AKT3), a major target of growth factor receptors: in the complex, TMEM175 channel is opened by conformational changes by AKT, leading to its activation (PubMed:33505021). The lysoK(GF) complex is required to protect neurons against stress-induced damage (PubMed:33505021).

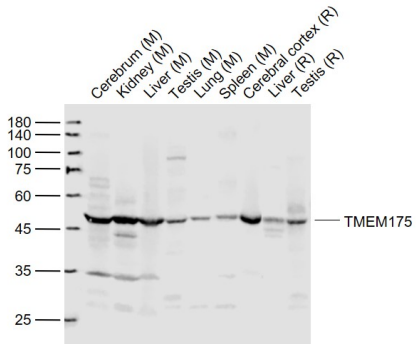
Cellular Location Endosome membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein

Tissue Location Widely expressed..

Background

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Images



Sample:
Lane 1: Cerebrum (Mouse) Lysate at 40 ug
Lane 2: Kidney (Mouse) Lysate at 40 ug
Lane 3: Liver (Mouse) Lysate at 40 ug
Lane 4: Testis (Mouse) Lysate at 40 ug
Lane 5: Lung (Mouse) Lysate at 40 ug
Lane 6: Spleen (Mouse) Lysate at 40 ug
Lane 7: Cerebral cortex (Rat) Lysate at 40 ug
Lane 8: Liver (Rat) Lysate at 40 ug
Lane 9: Testis (Rat) Lysate at 40 ug
Primary: Anti-TMEM175 (AP57311) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 56/43 kD
Observed band size: 45 kD

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