

TMEM175 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP17152c**Specification**

TMEM175 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q9BSA9](#)**TMEM175 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 84286**Other Names**

Transmembrane protein 175, TMEM175

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TMEM175 Antibody (Center) Blocking Peptide - 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: [35750034](http://www.uniprot.org/citations/35750034), PubMed: [35333573](http://www.uniprot.org/citations/35333573), PubMed: [37390818](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/35750034)). Regulation of luminal pH stability is required for autophagosome-lysosome fusion (PubMed: [26317472](http://www.uniprot.org/citations/26317472), PubMed: [32267231](http://www.uniprot.org/citations/32267231)). Also acts as a potassium channel at higher pH, regulating potassium conductance in endosomes and lysosomes (PubMed: [26317472](http://www.uniprot.org/citations/26317472), PubMed: [28723891](http://www.uniprot.org/citations/28723891), PubMed: [32228865](http://www.uniprot.org/citations/32228865), PubMed: [32267231](http://www.uniprot.org/citations/32267231), PubMed: [33505021](http://www.uniprot.org/citations/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..

TMEM175 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

TMEM175 Antibody (Center) Blocking Peptide - Images**TMEM175 Antibody (Center) Blocking Peptide - Background**

TMEM175 (transmembrane protein 175) is a hypothetical protein found in Chromosome 4.

TMEM175 Antibody (Center) Blocking Peptide - References

Gerhard, D.S., et al. Genome Res. 14 (10B), 2121-2127 (2004) :Ota, T., et al. Nat. Genet. 36(1):40-45(2004)