

Recombinant Human TMEM9 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50981

Size: 10ug, 100ug

Protein Name: Proton-transporting V-type ATPase complex assembly regulator TMEM9 (v-ATPase assembly regulator TMEM9) (Dermal papilla-derived protein 4) (Transmembrane protein 9) (Protein TMEM9)

Synonym: TMEM9, DERP4, TMEM9A, HSPC186, PSEC0012, UNQ631/PRO1248

UniProt ID: Q9P0T7

UniProt Link: www.uniprot.org/uniprotkb/Q9P0T7/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 183 AA

Molecular Weight: 21 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MKLLSLVAVVGCLLVPPAEANKSSDIRCKCICPPYRNISGHIYNQNVSQKDCNCLHVVEPMPVPGH
DVEAYCLLCECRYEERSTTTIKVIIVYLSVVGALLLYMAFLMLVDPLIRKPDAYTEQLHNEEENEDARS
MAAAAASLGGPRANTVLERVEGAQQRWKLQVQEQRKTVFDRHKMLS

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Proton-transporting V-type ATPase complex assembly regulator TMEM9 (v-ATPase assembly regulator TMEM9) (Dermal papilla-derived protein 4) (Transmembrane protein 9) (Protein TMEM9) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Transmembrane protein that binds to and facilitates the assembly of lysosomal proton-transporting V-type ATPase (v-ATPase), resulting in enhanced lysosomal acidification and trafficking (PubMed:30374053). By bringing the v-ATPase accessory protein ATP6AP2 and the v-ATPase subunit ATP6V0D1 together, allows v-ATPase complex formation and activation (PubMed:30374053). TMEM9-controlled vesicular acidification induces hyperactivation of Wnt/beta-catenin signaling, involved in development, tissue homeostasis and tissue regeneration, through lysosomal degradation of adenomatous polyposis coli/APC (PubMed:30374053, PubMed:32380568). In the liver, involved in hepatic regeneration (PubMed:32380568).

Subcellular Localization: Lysosome membrane ; Single-pass type I membrane protein . Late endosome membrane ; Single-pass type I membrane protein . Endosome, multivesicular body membrane ; Single-pass type I membrane protein .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.