Recombinant TM63C protein (His tag)

Catalog Number	546136
Synonyms	Calcium permeable stress-gated cation channel 1; Transmembrane protein 63C; hTMEM63C
Species	Human
Expression System	E. coli
Accession	Q9P1W3
Molecular Weight	Predictes a molecular mass of 24.96 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	208-403
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 208-403 aa (Q9P1W3) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant human TMEM63C protein fragment (residues 208-403) for research applications. This high-purity fragment represents a stable, soluble domain of the osmosensitive cation channel TMEM63C, ideal for structural studies, biochemical characterization, and functional investigations of cellular stress response mechanisms. TMEM63C is an osmosensitive cation channel preferentially activated by hypotonic stress, functioning as a calcium-permeable stress-gated channel. Unlike its paralog TMEM63B, it lacks phospholipid scramblase activity. The protein localizes to endoplasmic reticulum membranes and cell membranes, with particular enrichment at mitochondria-ER contact sites where it regulates metabolite flux and organelle morphology in response to osmotic changes. TMEM63C plays crucial roles in mitochondrial motility and function in motor neuron axons and is essential for maintaining the functional integrity of the kidney glomerular filtration barrier, making it a significant target for neurological and renal research.