Recombinant TM249 protein (His tag)

Catalog Number	550888
Synonyms	Transmembrane protein 249
Species	Human
Expression System	E. coli
Accession	Q2WGJ8
Molecular Weight	Predictes a molecular mass of 16.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	106-235
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 106-235 aa (Q2WGJ8) 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 TMEM249 (Cation channel sperm-associated auxiliary subunit TMEM249) fragment (residues 106-235) is a high-purity, soluble protein designed for structural and biochemical studies. This 130-amino acid fragment, derived from the human transmembrane protein, offers a stable and functional unit ideal for investigating its role in sperm cell hyperactivation and ion channel regulation. TMEM249 serves as an auxiliary component of the CatSper complex, which is essential for sperm cell hyperactivation—a critical process in fertilization. The full-length protein is a multi-pass membrane protein predominantly localized to the principal piece of the sperm tail, specifically within the flagellum membrane. As part of the CatSper complex, TMEM249 contributes to the regulation of calcium ion channels, influencing sperm motility and function. The selected fragment (residues 106-235) was computationally optimized for stability and solubility, enabling reliable use in experimental applications without compromising biological relevance.