Recombinant TM181 protein (His tag)

Catalog Number	549115
Species	Human
Expression System	E. coli
Accession	Q9P2C4
Molecular Weight	Predictes a molecular mass of 12.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	37-130
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 37-130 aa (Q9P2C4) 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 Transmembrane protein 181 (TMEM181) Fragment (residues 37-130) is a high-purity, soluble protein designed for structural and biochemical studies. This 94-amino acid fragment represents a stable, functional unit of TMEM181, enabling researchers to investigate its role in mediating the action of bacterial cytolethal distending toxins (CDT) with enhanced experimental utility. Transmembrane protein 181 (TMEM181) is a multi-pass membrane protein in humans that plays a critical role in mediating the effects of cytolethal distending toxins (CDT), which are virulence factors secreted by numerous pathogenic bacteria. Research has shown that TMEM181 expression levels are rate-limiting for intoxication by CDT, highlighting its importance in host-pathogen interactions and cellular response to bacterial infection. The protein is localized to the membrane, consistent with its function in toxin action, and studies referenced in PubMed (19965467) support its biological significance. The recombinant fragment (residues 37-130) was selected computationally to provide a stable, soluble region ideal for elucidating TMEM181's mechanistic contributions to toxin-mediated processes.