Recombinant TMTC1 protein (His tag)

Catalog Number	545372
Synonyms	Transmembrane O-mannosyltransferase targeting cadherins 1; Transmembrane and tetratricopeptide repeat-containing 1
Species	Human
Expression System	E. coli
Accession	Q8IUR5
Molecular Weight	Predictes a molecular mass of 50.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	460-882
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 460-882 aa (Q8IUR5) 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 fragment of Human Protein O-mannosyl-transferase TMTC1 (EC 2.4.1.109), encompassing residues 460-882. This fragment is a stable, soluble unit optimized for structural and biochemical studies, enabling investigation into O-mannosylation mechanisms targeting cadherins and other substrates. TMTC1 is a transmembrane O-mannosyl-transferase that transfers mannosyl residues to serine or threonine hydroxyl groups. As part of the TMTC family, it primarily modifies cadherin superfamily proteins, decorating cadherin domains with O-linked mannose glycans at specific regions, and also acts on proteins like PDIA3. Located in the endoplasmic reticulum as a multi-pass membrane protein, TMTC1 plays a distinct role in protein glycosylation, which is crucial for cellular adhesion and signaling processes. This recombinant fragment supports research into its enzymatic activity and structural features.