Recombinant TMTC2 protein (His tag)

Catalog Number	547727
Synonyms	Transmembrane O-mannosyltransferase targeting cadherins 2; Transmembrane and tetratricopeptide repeat-containing 2
Species	Human
Expression System	E. coli
Accession	Q8N394
Molecular Weight	Predictes a molecular mass of 43.40 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	471-836
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 471-836 aa (Q8N394) 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 TMTC2 Protein Fragment (residues 471-836) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment of Protein O-mannosyl-transferase TMTC2, a key enzyme in protein O-mannosylation, is engineered for stability and functionality, enabling researchers to investigate its role in glycosylation processes with precision. Protein O-mannosyl-transferase TMTC2 (EC 2.4.1.109) is an enzyme that transfers mannosyl residues to serine or threonine residues on target proteins, playing a critical role in O-linked mannose glycosylation. As part of the TMTC family, it is primarily dedicated to modifying cadherin superfamily proteins, contributing to the specific decoration of cadherin domains with glycans, and also acts on other substrates like PDIA3. This enzyme is localized to the endoplasmic reticulum membrane as a multi-pass membrane protein, underscoring its involvement in early secretory pathway glycosylation events. The provided fragment (residues 471-836) represents a stable, soluble region selected for experimental applications, facilitating insights into TMTC2's mechanistic and structural properties without the complexities of the full-length membrane protein.