Recombinant QTMAN protein (His tag)

Catalog Number	545101
Synonyms	QTMAN; Glycosyltransferase-like domain-containing protein 1; Mannosyltransferase-like protein Xa; Mat-Xa
Species	Human
Expression System	E. coli
Accession	Q4AE62
Molecular Weight	Predictes a molecular mass of 23.72 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	1-189
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-189 aa (Q4AE62) 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 tRNA-queuosine alpha-mannosyltransferase (QTMAN) Fragment (1-189) is a high-purity, soluble protein fragment engineered for structural and biochemical studies. This fragment, derived from the GTDC1 gene, retains key properties for investigating its role in tRNA modification and translational regulation. The full-length tRNA-queuosine alpha-mannosyltransferase (QTMAN), encoded by the GTDC1 gene, is a glycosyltransferase that catalyzes the mannosylation of queuosine at position 34 in cytoplasmic tRNA(Asp). This modification produces mannosyl-queuosine(34), which is essential for regulating protein translation by slowing elongation at cognate codons GAC and GAU. The enzyme localizes to both the cytoplasm and nucleus, highlighting its involvement in fundamental post-transcriptional regulatory mechanisms. The provided fragment (residues 1-189) represents a stable, soluble unit optimized for experimental analysis of its functional domains.