Recombinant OFUT3 protein (His tag)

Catalog Number	538277
Synonyms	Alpha-(1,3)-fucosyltransferase 10; Fucosyltransferase X; Fuc-TX; FucT-X; Galactoside 3-L-fucosyltransferase 10; Fucosyltransferase 10
Species	Human
Expression System	E. coli
Accession	Q6P4F1
Molecular Weight	Predictes a molecular mass of 48.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	79-479
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 79-479 aa (Q6P4F1) 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 GDP-fucose protein O-fucosyltransferase 3 (FUT10) fragment (aa 79-479) is a high-quality protein preparation designed for studying O-fucosylation mechanisms and glycosyltransferase activity. This 401-amino acid fragment represents a stable, soluble unit ideal for structural characterization, enzymatic assays, and functional studies of protein glycosylation pathways. GDP-fucose protein O-fucosyltransferase 3 (FUT10) is a key enzyme that catalyzes O-fucosylation of serine or threonine residues in EMI domains of target proteins such as MMRN1, MMRN2, and EMID1. This post-translational modification is crucial for facilitating proper protein folding and secretion. The enzyme attaches fucose through an O-glycosidic linkage and may also exhibit alpha-(1,3)-fucosyltransferase activity toward N-glycan acceptors, potentially playing a role in biosynthesis of Lewis X-carrying biantennary N-glycans that regulate neuron stem cell self-renewal during brain development. FUT10 is primarily localized to the endoplasmic reticulum membrane as a single-pass type II membrane protein, with some isoforms also found in the Golgi apparatus and lysosomes, highlighting its importance in the secretory pathway and cellular glycosylation machinery.