Recombinant OFUT2 protein (His tag)

Catalog Number	533009
Synonyms	Peptide-O-fucosyltransferase 2; O-FucT-2
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9W589
Gene ID	31098
Molecular Weight	Predictes a molecular mass of 51.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 53 kDa band.

Product Information

Sequence Region	61-490
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 61-490 aa (Q9W589) 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	This product is a high-quality recombinant fragment of Drosophila melanogaster GDP-fucose protein O-fucosyltransferase 2 (O-FucT-2), encompassing residues 61-490. This 430-amino acid fragment has been computationally optimized for stability and solubility, making it an ideal reagent for structural studies, enzymatic assays, and functional investigations of O-fucosylation mechanisms. GDP-fucose protein O-fucosyltransferase 2 (EC 2.4.1.221), encoded by the O-fut2 gene, catalyzes the attachment of fucose via an O-glycosidic linkage to conserved serine or threonine residues within the C1-X-X-S/T-C2 consensus sequence of thrombospondin type I repeats (TSRs). This enzyme O-fucosylates multiple protein families, including ADAMTS, thrombospondin, and spondin families, playing a critical role in post-translational modification processes. The full-length protein is primarily localized to the endoplasmic reticulum, with additional presence in the Golgi apparatus, indicating its involvement in the secretory pathway where it modifies TSR-containing proteins essential for various biological functions.