Recombinant OFUT2 protein (His tag)

Catalog Number	543919
Synonyms	Peptide-O-fucosyltransferase 2; O-FucT-2
Species	Human
Expression System	E. coli
Accession	Q9Y2G5
Molecular Weight	Predictes a molecular mass of 47.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	42-429
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 42-429 aa (Q9Y2G5) 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 recombinant protein product features a stable and soluble fragment (amino acids 42-429) of the human GDP-fucose protein O-fucosyltransferase 2 (POFUT2), an enzyme critical for O-fucosylation of thrombospondin type I repeats. This fragment is ideal for structural studies, biochemical assays, and functional investigations of protein glycosylation mechanisms. GDP-fucose protein O-fucosyltransferase 2 (POFUT2) catalyzes the attachment of fucose via O-glycosidic linkage to conserved serine or threonine residues within thrombospondin type I repeats (TSRs), specifically in the consensus sequence C1-X-X-S/T-C2. This enzyme O-fucosylates multiple protein families including ADAMTS, thrombospondin, and spondin families, and is essential for proper secretion of ADAMTS family members such as ADAMTSL1 and ADAMTS13. POFUT2 also plays a role in restricting epithelial to mesenchymal transition, maintaining mesoderm patterning, and definite endoderm localization. The protein is primarily localized in the endoplasmic reticulum, with additional presence in the Golgi apparatus, underscoring its importance in endoplasmic reticulum-associated glycosylation processes.