Recombinant FUT4 protein (His tag)

Catalog Number	546842
Synonyms	1,3; 4-galactosyl-N-acetylglucosaminide 3-alpha-L-fucosyltransferase; ELAM-1 ligand fucosyltransferase; Fucosyltransferase 4; Fucosyltransferase IV; Fuc-TIV; FucT-IV; Galactoside 3-L-fucosyltransferase
Species	Human
Expression System	E. coli
Accession	P22083
Molecular Weight	Predictes a molecular mass of 42.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	173-530
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 173-530 aa (P22083) 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 Alpha-(1,3)-fucosyltransferase 4 (FUT4) fragment (residues 173-530) is a highly purified, soluble protein derived from human FUT4, designed for robust structural and biochemical studies. This fragment retains key functional characteristics, enabling researchers to investigate fucosylation mechanisms and glycan determinant formation critical in cellular development and immune responses. Alpha-(1,3)-fucosyltransferase 4 (FUT4) is a Golgi stack membrane-bound enzyme that catalyzes the alpha(1->3) linkage of fucose from GDP-beta-L-fucose to N-acetylglucosamine within type 2 lactosamine glycans. It robustly generates Lewis X antigen (CD15) on nonsialylated LacNAc units and contributes to sialyl Lewis X and 6-sulfo sialyl Lewis X epitopes, which serve as recognition sites for C-type lectins. FUT4, along with FUT7, plays a vital role in selectin ligand biosynthesis, facilitating lymphocyte homing, leukocyte migration, and blood leukocyte homeostasis. The enzyme may also produce VIM-2 antigen in specific cell types. The recombinant fragment (173-530) represents a stable, soluble unit optimized for experimental applications, excluding the transmembrane region to enhance usability in vitro assays.