Recombinant B3GN6 protein (His tag)

Catalog Number	545247
Synonyms	Core 3 synthase; UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 6; BGnT-6; Beta-1,3-Gn-T6; Beta-1,3-N-acetylglucosaminyltransferase 6; Beta3Gn-T6
Species	Human
Expression System	E. coli
Accession	Q6ZMB0
Molecular Weight	Predictes a molecular mass of 37.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	68-384
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 68-384 aa (Q6ZMB0) 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 B3GNT6 (Core 3 Synthase) Fragment (aa 68-384) – a soluble, stable protein fragment designed for structural and biochemical studies of mucin-type O-glycan biosynthesis. This 317-amino acid construct retains key functional regions, enabling research into glycosyltransferase activity and digestive organ glycoprotein synthesis. The full-length Acetylgalactosaminyl-O-glycosyl-glycoprotein beta-1,3-N-acetylglucosaminyltransferase (B3GNT6) is a Golgi apparatus membrane-bound enzyme responsible for synthesizing the core 3 structure of O-glycans. As a beta-1,3-N-acetylglucosaminyltransferase, it catalyzes the formation of core 3 oligosaccharides (GlcNAcβ1-3GalNAc-R), serving as a crucial precursor in mucin-type glycoprotein biosynthesis. This enzyme plays a vital role in digestive organ function by contributing to the complex O-glycan structures essential for mucosal protection and cellular recognition processes. The protein localizes to the Golgi apparatus membrane as a single-pass type II membrane protein, where it performs its glycosyltransferase function in the glycosylation pathway.