Recombinant B4GN4 protein (His tag)

Catalog Number	548999
Synonyms	NGalNAc-T1; Beta-1,4-N-acetylgalactosaminyltransferase IV; Beta4GalNAc-T4; Beta4GalNAcT4
Species	Human
Expression System	E. coli
Accession	Q76KP1
Molecular Weight	Predictes a molecular mass of 36.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	105-409
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 105-409 aa (Q76KP1) 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 specific 305-amino acid fragment (residues 105-409) of human N-acetyl-beta-glucosaminyl-glycoprotein 4-beta-N-acetylgalactosaminyltransferase 1 (NGalNAc-T1), also known as Beta4GalNAc-T4. The fragment is engineered to include the complete PA14 functional domain, making it an excellent tool for investigating the enzymatic activity and molecular interactions of this key glycosyltransferase in controlled experimental settings. The full-length NGalNAc-T1 enzyme, encoded by the B4GALNT4 gene, is a Golgi apparatus-localized, type II membrane protein that catalyzes the transfer of N-acetylgalactosamine (GalNAc) from UDP-GalNAc to N-acetylglucosamine-beta-benzyl, forming beta-1,4-linked GalNAc-GlcNAc structures (N,N'-diacetyllactosediamine) in both N-linked and likely O-linked glycans. This activity is crucial for the biosynthesis and modification of complex carbohydrate structures on glycoproteins, which play vital roles in cell signaling, recognition, and adhesion processes. The enzyme's specific localization within the Golgi stack membrane underscores its importance in the secretory pathway's glycosylation machinery.