

# Human B3GNT2 Protein (Fc Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 11416-H01H

## General Information

### Gene Name Synonym:

B3GN-T2; B3GNT; B3GNT-2; B3GNT1; BETA3GNT; BGnT-2; BGNT2

### Protein Construction:

A DNA sequence encoding the human B3GNT2 (Q9NY97-1) (Lys29-Cys397) was expressed, with the fused Fc region of human IgG1 at the N-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per  $\mu\text{g}$  of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at  $-70\text{ }^{\circ}\text{C}$

**Predicted N terminal:** Glu

### Molecular Mass:

The recombinant human B3GNT2/Fc is a disulfide-linked homodimer. The reduced monomer comprises 629 amino acids and has a predicted molecular mass of 71.2 kDa. The apparent molecular mass of the protein is approximately 112-120 kDa in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

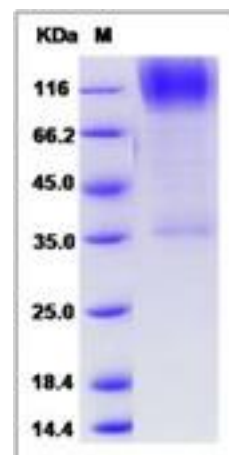
Store it under sterile conditions at  $-20\text{ }^{\circ}\text{C}$  to  $-80\text{ }^{\circ}\text{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

B3GNT2 belongs to the beta-1,3-N-acetylglucosaminyltransferase family. It is a type II transmembrane protein which prefers the substrate of lacto-N-neotetraose. Alternative splicing produced 2 isoforms of the human protein. B3GNT2 catalyzes the initiation and elongation of poly-N-acetylglucosamine chains. Enzymatic activities of some glycosyltransferases are markedly increased via complex formation with other transferases or cofactor proteins. B3GNT2 and beta3Gn-T8 can form a heterodimer in vitro and that the complex exhibits much higher enzymatic activity than either enzyme alone. It is found that up-regulation of beta3Gn-T8 in differentiated HL-60 cells may increase poly-N-acetylglucosamine chains by activating intrinsic B3GNT2.

## References

1. Australo-An, *et al.* (2010) Genome-wide association study of ankylosing spondylitis identifies non-MHC susceptibility loci. *Nat Genet.* 42(2):123-7.
2. Kim W, *et al.* (2011) Systematic and quantitative assessment of the ubiquitin-modified proteome. *Mol Cell.* 44(2):325-40.
3. Seko A, *et al.* (2008) Activation of beta1,3-N-acetylglucosaminyltransferase-2 (beta3Gn-T2) by beta3Gn-T8. Possible involvement of beta3Gn-T8 in increasing poly-N-acetylglucosamine chains in differentiated HL-60 cells. *J Biol Chem.* 283(48):33094-100.

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