Data Sheet (Cat.No.TMPY-03051)

TargetMol

B3GNT2 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	B3GNT-2;B3GNT;UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 2;UDP-GlcNAc:βGal β-1,3-N-acetylglucosaminyltransferase 2;β3GNT;BGNT2;BETA3GNT;BGnT-2;B3GN-T2;B3GNT1
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. Predicted N terminal: Glu
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9NY97-1
Molecular Weight:	71.2 kDa (predicted); 112-120 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

B3GNT2 belongs to the beta-1,3-N-acetylglucosaminyltransferase family. It is a type II transmembrane protein that 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- acetyllactosamine 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-acetyllactosamine chains by activating intrinsic B3GNT2.

Reference

Australo-An, et al. (2010) Genome-wide association study of ankylosing spondylitis identifies non-MHC susceptibility loci. Nat Genet. 42(2):123-7.

Kim W, et al. (2011) Systematic and quantitative assessment of the ubiquitin-modified proteome. Mol Cell. 44(2): 325-40.

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-acetyllactosamine chains in differentiated HL-60 cells. J Biol Chem. 283(48):33094-100.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481