

Recombinant Full Length Human B3GALNT1 Protein, GST-tagged

Cat. No. B3GALNT1-1714HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human B3GALT3 full-length ORF (AAH28571.1, 1 a.a. - 331 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	331 amino acids
Description	This gene is a member of the beta-1,3-galactosyltransferase (beta3GalT) gene family. This family encodes type II membrane-bound glycoproteins with diverse enzymatic functions using different donor substrates (UDP-galactose and UDP-N-acetylglucosamine) and different acceptor sugars (N-acetylglucosamine, galactose, N-acetylgalactosamine). The beta3GalT genes are distantly related to the Drosophila Brainiac gene and have the protein coding sequence contained in a single exon. The beta3GalT proteins also contain conserved sequences not found in the beta4GalT or alpha3GalT proteins. The carbohydrate chains synthesized by these enzymes are designated as type 1, whereas beta4GalT enzymes synthesize type 2 carbohydrate chains. The ratio of type 1:type 2 chains changes during embryogenesis. By sequence similarity, the beta3GalT genes fall into at least two groups: beta3GalT4 and 4 other beta3GalT genes (beta3GalT1-3, beta3GalT5). The encoded protein of this gene does not use N-acetylglucosamine as an acceptor sugar at all. Multiple transcript variants that are alternatively spliced in the 5' UTR have been described;

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	they all encode the same protein. [provided by RefSeq]
Form	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Molecular Mass	65.9 kDa
AA Sequence	MASALWTVLPSRMSLRSLKWSLLLLSLLSFFVMWYLSLPHYNVIERVNWWMYFYEYE PIYRQDFHFTLREHSNCSHQNLFLVILVTSHPSDVKARQAIRVTWGEKKSWWGYEV LTFLLGQAEKEDKMLALSLEDEHLLYGDIIHQDFLDTYNNLTTLKTIMAFRWVTEFC PNAKYVMKTDTDVFINTGNLVKYLNLNHSEKFFTGYPLIDNYSYRGFYQKTHISYQE YPFKVFPYCSGLGYIMSRDLVPRIYEMMGHVKPIKFEDVYVGICLNLLKVNIIHIPEDT NLFFLYRIHLDVCQLRRVIAAHGFSSKEITFWQVMLRNTTCHY
Notes	Best use within three months from the date of receipt of this protein.
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	B3GALNT1 beta-1,3-N-acetylgalactosaminyltransferase 1 (globoside blood group) [Homo sapiens]
Official Symbol	B3GALNT1
Synonyms	B3GALNT1; beta-1,3-N-acetylgalactosaminyltransferase 1 (globoside blood group); B3GALT3, UDP Gal:betaGlcNAc beta 1,3 galactosyltransferase, polypeptide 3 (Globoside blood group) , UDP GalNAc:betaGlcNAc beta 1,3 galactosaminyltransferase, polypeptide 1 (Globoside blood group); UDP-GalNAc:beta-1,3-N-acetylgalactosaminyltransferase 1; beta3Gal T3; galT3; GLOB; globoside synthase; P antigen synthase; P1; b3Gal-T3; brainiac1; beta3GalT3; beta-3-Gx-T3; beta-1,3-GalNAc-T1; beta-1,3-GalTase 3; P blood group globoside; beta-

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1,3-galactosyltransferase 3; globotriaosylceramide 3-beta-N-acetylglactosaminyltransferase; galactosylgalactosylglucosylceramide beta-D-acetylglactosaminyltransferase; UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypeptide 3 (Globoside blood group); UDP-N-acetylglactosamine:globotriaosylceramide beta-1,3-N-acetylglactosaminyltransferase; UDP-GalNAc:betaGlcNAc beta-1,3-galactosaminyltransferase, polypeptide 1 (Globoside blood group); P; GLCT3; Gb4Cer; B3GALT3; beta3Gal-T3

Gene ID	8706
mRNA Refseq	NM_001038628
Protein Refseq	NP_001033717
MIM	603094
UniProt ID	O75752