

Recombinant Human B3GALNT1 cell lysate

Cat. No. B3GALNT1-2108HCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species

Human

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; they all encode the same protein.

Size

100 ul

Storage Buffer

1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)

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 45-1 Ramsey Road, Shirley, NY 11967, USA

Applications Western Blot;

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-1,3-galactosyltransferase 3; globotriaosylceramide 3-beta-N-acetylgalactosaminyltransferase; galactosylgalactosylglucosylceramide beta-D-acetylgalactosaminyltransferase; UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypeptide 3 (Globoside blood group); UDP-N-acetylgalactosamine:globotriaosylceramide beta-1,3-N-acetylgalactosaminyltransferase; 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

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MIM	603094
UniProt ID	O75752
Chromosome Location	3q25
Pathway	Glycosphingolipid biosynthesis - globo series, organism-specific biosystem; Glycosphingolipid biosynthesis - globo series, conserved biosystem; Glycosphingolipid biosynthesis, globo-series, LacCer =>Gb4Cer, organism-specific biosystem; Glycosphingolipid biosynthesis, globo-series, LacCer => Gb4Cer, conserved biosystem; Metabolic pathways, organism-specific biosystem;
Function	UDP-galactose:beta-N-acetylglucosamine beta-1,3-galactosyltransferase activity; galactosylgalactosylglucosylceramide beta-D-acetylgalactosaminyltransferase activity; galactosyltransferase activity; transferase activity, transferring glycosyl groups;

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