

Recombinant Human B3GALT2, His-tagged

Cat. No. B3GALT2-10096H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human B3GALT2 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.
Species	Human
Source	E.coli
ProteinLength	47-422a.a.
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). This gene encodes a protein that functions in N-linked glycoprotein glycosylation and shows strict donor substrate specificity for UDP-galactose.

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Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.
GENE INFORMATION	
Gene Name	B3GALT2 UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypeptide 2 [Homo sapiens]
Official Symbol	B3GALT2
Synonyms	B3GALT2; UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypeptide 2; beta-1,3-galactosyltransferase 2; beta3Gal T2; beta-3-galt2; beta-1,3-GalTase 2; UDP-galactose:2-acetamido-2-deoxy-D-glucose 3beta-galactosyltransferase 2; GLCT2; BETA3GALT2; beta3Gal-T2;
Gene ID	8707
mRNA Refseq	NM_003783
Protein Refseq	NP_003774
MIM	603018
UniProt ID	O43825
Chromosome Location	1q31

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Pathway

Glycosphingolipid biosynthesis - lacto and neolacto series, organism-specific biosystem; Glycosphingolipid biosynthesis - lacto and neolacto series, conserved biosystem; Glycosphingolipid biosynthesis, lacto-series, LacCer => Lc4Cer, organism-specific biosystem; Glycosphingolipid biosynthesis, lacto-series, LacCer => Lc4Cer, conserved biosystem; Metabolic pathways, organism-specific biosystem;

Function

UDP-galactose:beta-N-acetylglucosamine beta-1,3-galactosyltransferase activity; galactosyltransferase activity; transferase activity, transferring glycosyl groups;

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