B3GNT2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	B3GNT2, Monoclonal Antibody
Full Product Name	B3GNT2 (UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 2, BGnT-2, Beta-1,3-Gn-T2, Beta-1,3-N-acetylglucosaminyltransferase 2, Beta3Gn-T2, Beta-1,3-N-acetylglucosaminyltransferase 1, BGnT-1, Beta-1,3-Gn-T1, Beta3Gn-T1, Beta-1,3-galactosyltrans
Product Gene Name	anti-B3GNT2 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	1A8
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human B3GNT1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	43.5kDa (375aa) 40-57kDa (SDS-PAGE under reducing conditions)
OMIM	AF092051 mRNA
3D Structure	ModBase 3D Structure for Q9NY97
Immunogen	Partial recombinant corresponding to aa111-210 from human B3GNT1 (NP_006568) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	NLPDRFKDFLLYLRCRNYSLLIDQPDKCAKKPFLLLAIKSLTPHFARRQAIRESWGQESNAGNQTVVRVFLLGQTPPEDNHPDLSDMLKFESEKHQDILM
Conjugate	MaxLight750
Product Categories/Family for anti-B3GNT2 antibody	Antibodies; Enzymes; Transferase
Applications Tested/Suitable for anti-B3GNT2 antibody	FLISA, Western Blot (WB)
Application Notes for anti-B3GNT2 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-B3GNT2 antibody	This gene encodes a member of the beta-1,3-N-acetylglucosaminyltransferase family. This enzyme is a type II transmembrane protein. It is essential for the synthesis of poly-N-acetyllactosamine, a determinant for the blood group i antigen.

Other Notes	Small volumes of anti-B3GNT2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for B3GNT2 purchase	MBS6231725 is an antibody targeting B3GNT2. Also known as B3GNT2 (UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 2, BGnT-2, Beta-1,3-Gn-T2, Beta-1,3-N-acetylglucosaminyltransferase 2, Beta3Gn-T2, Beta-1,3-N-acetylglucosaminyltransferase 1, BGnT-1, Beta-1,3-Gn-T1, Beta3Gn-T1, Beta-1,3-galactosyltrans. Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for B3GNT2. It may not necessarily be applicable to this product.

NCBI GI #	9845238
NCBI GeneID	10678
NCBI Accession #	NP_006568
UniProt Primary Accession #	Q9NY97
UniProt Secondary Accession #	Q54AC1; Q9NQQ9; Q9NQR0; Q9NUT9
UniProt Related Accession #	Q9NY97
GenBank Nucleotide #	NM_006577
NCBI Official Full Name	N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase 2
NCBI Official Synonym Full Names	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 2
NCBI Official Symbol	B3GNT2
NCBI Official Synonym Symbols	B3GNT; BGNT2; B3GNT1; BGnT-2; beta-1; 3-Gn-T1; 3-Gn-T2; B3GN-T2; B3GNT-2; BETA3GNT; beta3Gn-T1; beta3Gn-T2
UniProt Protein Name	N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase 2
UniProt Synonym Protein Names	Beta-1,3-N-acetylglucosaminyltransferase 1; BGnT-1; Beta-1,3-Gn-T1; Beta3Gn-T1; Beta-1,3-galactosyltransferase 7; Beta-1,3-GalTase 7; Beta3Gal-T7; Beta3GalT7; b3Gal-T7; Beta-3-Gx-T7; UDP-Gal:beta-GlcNAc beta-1,3-galactosyltransferase 7; UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 2; BGnT-2; Beta-1,3-Gn-T2; Beta-1,3-N-acetylglucosaminyltransferase 2; Beta3Gn-T2; UDP-galactose:beta-N-acetylglucosamine beta-1,3-galactosyltransferase 7
Protein Family	N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase
UniProt Gene Name	B3GNT2
UniProt Synonym Gene Names	B3GALT7; B3GNT1; BGnT-1; Beta-1,3-Gn-T1; Beta3Gn-T1; Beta-1,3-GalTase 7; Beta3Gal-T7; Beta3GalT7; b3Gal-T7; BGnT-2; Beta-1,3-Gn-T2; Beta-1,3-N-acetylglucosaminyltransferase 2; Beta3Gn-T2
NCBI Protein Information	N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase 2
NCBI Summary for B3GNT2	This gene encodes a member of the beta-1,3-N-acetylglucosaminyltransferase family. This enzyme is a type II transmembrane protein. It prefers the substrate of lacto-N-neotetraose, and is involved in the biosynthesis of poly-N-acetyllactosamine chains. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jan 2016]

UniProt Comments for B3GNT2	B3GNT2: Catalyzes the initiation and elongation of poly-N- acetyllactosamine chains. Belongs to the glycosyltransferase 31 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Cell development/differentiation; EC 2.4.1.-; Glycan Metabolism - glycosphingolipid biosynthesis - lacto and neolacto series; Glycan Metabolism - keratan sulfate biosynthesis; Membrane protein, integral; Motility/polarity/chemotaxis; Transferase Chromosomal Location of Human Ortholog: 2p15 Cellular Component: Golgi membrane Molecular Function: N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase activity; UDP-galactose:beta-N-acetylglucosamine beta-1,3-galactosyltransferase activity Biological Process: keratan sulfate biosynthetic process; O-glycan processing; poly-N-acetyllactosamine biosynthetic process
Research Articles on B3GNT2	**1.** we confirmed the involvement of BGNT-1.1 in ciliated sensory neuron function and morphogenesis. BGNT-1.1 functions at the trans-Golgi network of sheath cells (glia) to influence dye-filling and cilium length, in a cell non-autonomous manner. Notably, BGNT-1.1 is the orthologue of human B3GNT1/B4GAT1, a glycosyltransferase associated with Walker-Warburg syndrome (WWS).
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