

B3GNT5 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP9649c

Product Information

Application	WB, E
Primary Accession	Q9BYG0
Reactivity	Human, Mouse
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24268
Calculated MW	44053
Antigen Region	118-145

Additional Information

Gene ID	84002
Other Names	Lactosylceramide 1, 3-N-acetyl-beta-D-glucosaminyltransferase, Lactotriaosylceramide synthase, Lc(3)Cer synthase, Lc3 synthase, UDP-GlcNAc:beta-Gal beta-1, 3-N-acetylglucosaminyltransferase 5, BGnT-5, Beta-1, 3-Gn-T5, Beta-1, 3-N-acetylglucosaminyltransferase 5, Beta3Gn-T5, B3GNT5
Target/Specificity	This B3GNT5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 118-145 amino acids from the Central region of human B3GNT5.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	B3GNT5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	B3GNT5 (HGNC:15684)
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Function	Beta-1,3-N-acetylglucosaminyltransferase that plays a key role in the synthesis of lacto- or neolacto-series carbohydrate chains on glycolipids, notably by participating in biosynthesis of HNK-1 and Lewis X carbohydrate structures. Has strong activity toward lactosylceramide (LacCer) and neolactotetraosylceramide (nLc(4)Cer; paragloboside), resulting in the synthesis of Lc(3)Cer and neolactopentaosylceramide (nLc(5)Cer), respectively. Probably plays a central role in regulating neolacto-series glycolipid synthesis during embryonic development.
Cellular Location	Golgi apparatus membrane; Single- pass type II membrane protein
Tissue Location	Widely expressed. Highly expressed in lung, colon, placenta, testis, pituitary gland and cerebellum. Weakly expressed in brain, liver, spleen, lymph node and thymus

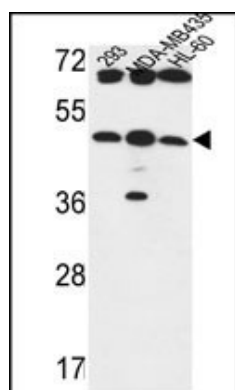
Background

B3GNT5 is a member of the beta-1,3-N-acetylglucosaminyltransferase family. This enzyme is a type II membrane protein. It exhibits strong activity to transfer GlcNAc to glycolipid substrates and is identified as the most likely candidate for lactotriaosylceramide synthase. This enzyme is essential for the expression of Lewis X epitopes on glycolipids.

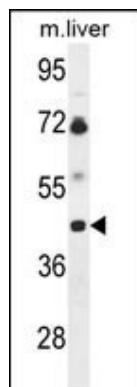
References

Marcos, N.T., et al. J. Clin. Invest. 118(6):2325-2336(2008)
Togayachi, A., et al. J. Biol. Chem. 276(25):22032-22040(2001)

Images



B3GNT5 Antibody (Center) (Cat. #AP9649c) western blot analysis in 293,MDA-MB435,HL-60 cell line lysates (35ug/lane).This demonstrates the B3GNT5 antibody detected the B3GNT5 protein (arrow).



Western blot analysis of B3GNT5 Antibody (Center) (Cat. #AP9649c) in mouse liver tissue lysates (35ug/lane). B3GNT5 (arrow) was detected using the purified Pab.