

B4GALT4 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18535c

Specification

B4GALT4 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O60513
Other Accession	NP_003769.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40041
Antigen Region	91-117

B4GALT4 Antibody (Center) - Additional Information

Gene ID 8702

Other Names

Beta-1, 4-galactosyltransferase 4, Beta-1, 4-GalTase 4, Beta4Gal-T4, b4Gal-T4, 241-, UDP-Gal:beta-GlcNAc beta-1, 4-galactosyltransferase 4, UDP-galactose:beta-N-acetylglucosamine beta-1, 4-galactosyltransferase 4, N-acetyllactosamine synthase, Nal synthase, Lactotriaosylceramide beta-1, 4-galactosyltransferase, Beta-N-acetylglucosaminyl-glycolipid beta-1, 4-galactosyltransferase, B4GALT4

Target/Specificity

This B4GALT4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 91-117 amino acids from the Central region of human B4GALT4.

Dilution

WB~~1:1000

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

B4GALT4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

B4GALT4 Antibody (Center) - Protein Information

Name B4GALT4 {ECO:0000303|PubMed:17690104, ECO:0000312|HGNC:HGNC:927}

Function Galactose (Gal) transferase involved in the synthesis of terminal N-acetyllactosamine (LacNac) unit present on glycan chains of glycoproteins and glycosphingolipids (PubMed:[12511560](#), PubMed:[17690104](#), PubMed:[32827291](#), PubMed:[9792633](#)). Catalyzes the transfer of Gal residue via a beta1->4 linkage from UDP-Gal to the non-reducing terminal N- acetyl glucosamine 6-O-sulfate (6-O-sulfoGlcNAc) in the linearly growing chain of both N- and O-linked keratan sulfate proteoglycans. Cooperates with B3GNT7 N-acetyl glucosamine transferase and CHST6 and CHST1 sulfotransferases to construct and elongate mono- and disulfated disaccharide units [->3Galbeta1->4(6-sulfoGlcNAcbeta)1->] and [->3(6-sulfoGalbeta)1->4(6-sulfoGlcNAcbeta)1->] within keratan sulfate polymer (PubMed:[17690104](#)). Transfers Gal residue via a beta1->4 linkage to terminal 6-O-sulfoGlcNAc within the LacNac unit of core 2 O-glycans forming 6-sulfo-sialyl-Lewis X (sLex). May contribute to the generation of sLex epitope on mucin-type glycoproteins that serve as ligands for SELL/L-selectin, a major regulator of leukocyte migration (PubMed:[12511560](#)). In the biosynthesis pathway of neolacto-series glycosphingolipids, transfers Gal residue via a beta1->4 linkage to terminal GlcNAc of a lactotriaosylceramide (Lc3Cer) acceptor to form a neolactotetraosylceramide (PubMed:[9792633](#)).

Cellular Location

Golgi apparatus membrane; Single-pass type II membrane protein. Secreted

Tissue Location

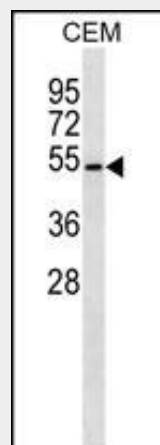
Highest expression is observed in placenta, pancreas, kidney and heart (PubMed:[9792633](#)). Expressed in corneal epithelial cells (PubMed:[17690104](#)).

B4GALT4 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

B4GALT4 Antibody (Center) - Images



B4GALT4 Antibody (Center) (Cat. #AP18535c) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the B4GALT4 antibody detected the B4GALT4 protein (arrow).

B4GALT4 Antibody (Center) - Background

This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, and Xyl. Each beta4GalT has a distinct function in the biosynthesis of different glycoconjugates and saccharide structures. As type II membrane proteins, they have an N-terminal hydrophobic signal sequence that directs the protein to the Golgi apparatus and which then remains uncleaved to function as a transmembrane anchor. By sequence similarity, the beta4GalTs form four groups: beta4GalT1 and beta4GalT2, beta4GalT3 and beta4GalT4, beta4GalT5 and beta4GalT6, and beta4GalT7. The enzyme encoded by this gene appears to mainly play a role in glycolipid biosynthesis. Two alternatively spliced transcript variants have been found for this gene.

B4GALT4 Antibody (Center) - References

Clark, H.F., et al. *Genome Res.* 13(10):2265-2270(2003)
Guo, S., et al. *Glycobiology* 11(10):813-820(2001)
Suzuki, Y., et al. *Genome Res.* 11(5):677-684(2001)
Amado, M., et al. *Biochim. Biophys. Acta* 1473(1):35-53(1999)
Fan, Y., et al. *Sci. China, C, Life Sci.* 42(4):337-345(1999)