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Anti-B4GALT1 Antibody

Catalog # AP60753

Product Information

Application	WB, IHC
Primary Accession	P15291
Reactivity	Human, Mouse, Rat, Bovine, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43920

Additional Information

Gene ID	2683
Other Names	GGTB2; Beta-1, 4-galactosyltransferase 1; Beta-1, 4-GalTase 1; Beta4Gal-T1; b4Gal-T1; UDP-Gal:beta-GlcNAc beta-1, 4-galactosyltransferase 1; UDP-galactose:beta-N-acetylglucosamine beta-1, 4-galactosyltransferase 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human B4GALT1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	B4GALT1 (HGNC:924)
Synonyms	GGTB2
Function	Galactosyltransferase acting in the Golgi stacks. Catalyzes the transfer of galactose (Gal) from UDP-alpha-D-galactose in beta(1->4) linkage to the non-reducing terminal N-acetylglucosamine (GlcNAc) moieties of glycolipids and complex-type N-linked glycans (PubMed:16157350, PubMed:27872474, PubMed:29133956, PubMed:36280670, PubMed:37632720, PubMed:38321209). Adds one Gal residue to both GlcNAc beta(1->2)-linked to the alpha(1->3) and alpha(1->6) mannose antennae of complex-type N-glycans, enabling the formation of mono- and di- galactosylated glycoforms. Galactosylates complex-type N-glycans attached on the fragment crystallizable (Fc) of immunoglobulin-gamma isotypes (IgGs), a prerequisite for antibody glycan sialylation and related anti-inflammatory effector

functions (PubMed:27872474, PubMed:29133956, PubMed:36280670, PubMed:37632720). Can also transfer a Gal residue to free GlcNAc to form N-acetyllactosamine (PubMed:16157350). With LALBA/alpha-lactalbumin forms the lactose synthase complex responsible for production of large amounts of lactose in the lactating mammary gland. Interaction with LALBA alters the sugar substrate specificity of the catalytic domain, enabling high affinity binding of glucose and its transformation to lactose (PubMed:16157350).

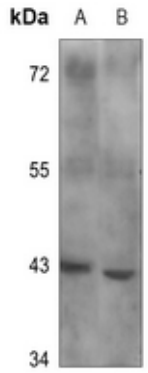
Cellular Location

Golgi apparatus, Golgi stack membrane; Single-pass type II membrane protein Note=Colocalizes with MGAT3 and ST6GAL1 in the Golgi stacks of cisternaee, including the cis-part of the Golgi stacks [Isoform Short]: Golgi apparatus, Golgi stack membrane; Single-pass type II membrane protein. Note=Found in trans cisternae of Golgi

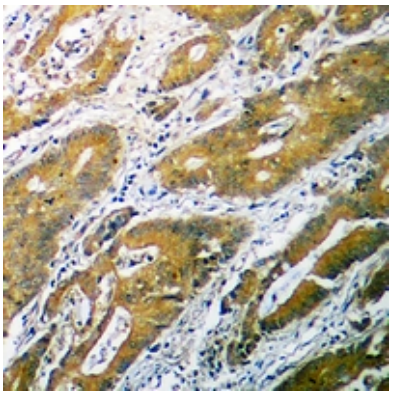
Tissue Location

Ubiquitously expressed, but at very low levels in fetal and adult brain

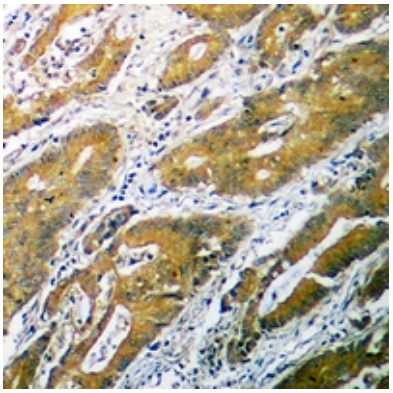
Images



Western blot analysis of B4GALT1 expression in mouse liver (A), rat liver (B) whole cell lysates. (Predicted band size: 43 kD; Observed band size: 43 kD)



Immunohistochemical analysis of B4GALT1 staining in human colon cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.