β-1,4-Gal-T1 Monoclonal Antibody

Catalog No	YP-mAb-04291
Isotype	IgG
Reactivity	Human;Mouse
Applications	WB
Gene Name	B4GALT1
Protein Name	Beta-1,4-galactosyltransferase 1
Immunogen	Synthesized peptide derived from the C-terminal region of human β-1,4-Gal-T1.
Specificity	β-1,4-Gal-T1 Monoclonal Antibody detects endogenous levels of β-1,4-Gal-T1 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	B4GALT1; 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
Observed Band	50kD
Cell Pathway	[Isoform Long]: Golgi apparatus, Golgi stack membrane ; Single-pass type II membrane protein. Cell membrane ; Single-pass type II membrane protein. Cell surface . Cell projection, filopodium . Found in trans cisternae of Golgi but is mainly localized at the plasma membrane (PubMed:1714903). B4GALT1 cell surface expression is regulated by UBE2Q1 (By similarity). .; [Isoform Short]: Golgi apparatus, Golgi stack membrane ; Single-pass type II membrane protein. Found in trans cisternae of Golgi. .; [Processed beta-1,4-galactosyltransferase 1]: Secreted . Soluble form found in body fluids. .
Tissue Specificity	Ubiquitously expressed, but at very low levels in fetal and adult brain.
Function	catalytic activity:UDP-galactose + D-glucose = UDP + lactose.,catalytic activity:UDP-galactose + N-acetyl-beta-D-glucosaminylglycopeptide = UDP + beta-D-galactosyl-(1->4)-N-acetyl-beta-D-glucosaminylglycopeptide.,catalytic activity:UDP-galactose + N-acetyl-D-glucosamine = UDP + N-acetyllactosamine.,cofactor:Manganese.,disease:Defects in B4GALT1 are the cause of congenital disorder of glycosylation type 2D (CDG2D) [MIM:607091]. CDGs are a family of severe inherited diseases caused by a defect in protein

	N-glycosylation. They are characterized by under-glycosylated serum proteins. These multisystem disorders present with a wide variety of clinical features, such as disorders of the nervous system development, psychomotor retardation, dysmorphic features, hypotonia, coagulation disorders, and immunodeficiency. The broad spectrum of features reflects the critical role of N-glycoproteins duri
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. This gene is unique among the beta4GalT genes because it encodes an enzyme that participates both in glycoconjugate and lacto
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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