

β -1,4-Gal-T1 Polyclonal Antibody

Catalog No :	YT5007
Reactivity :	Human;Mouse
Applications :	WB;IHC-p;IF(paraffin section);ELISA
Fields :	>>Galactose metabolism;>>N-Glycan biosynthesis;>>Various types of N-glycan biosynthesis;>>Other types of O-glycan biosynthesis;>>Mannose type O-glycan biosynthesis;>>Glycosaminoglycan biosynthesis - keratan sulfate;>>Glycosphingolipid biosynthesis - lacto and neolacto series;>>Metabolic pathways
Gene Name :	B4GALT1
Protein Name :	Beta-1,4-galactosyltransferase 1
Human Gene Id :	2683
Human Swiss Prot No :	P15291
Mouse Gene Id :	14595
Mouse Swiss Prot No :	P15535
Immunogen :	Synthesized peptide derived from the C-terminal region of human β -1,4-Gal-T1.
Specificity :	β -1,4-Gal-T1 Polyclonal 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 :	Polyclonal, Rabbit,IgG
Dilution :	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -20°C/1 year

Observed Band : 50

Cell Pathway : Galactose metabolism;N-Glycan biosynthesis;Keratan sulfate biosynthesis;Glycosphingolipid biosynthesis;

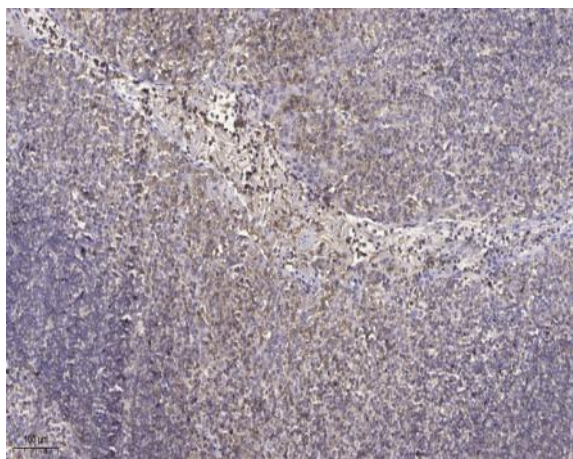
Background : This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, 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

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-acetyl-lactosamine.,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

Subcellular Location : [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. .

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

Products Images



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).