

产品名称: β -1,4-Gal-T1 Rabbit Polyclonal Antibody
产品货号: APRab20343



产品概述 (Summary)

产品名称 (Production Name)	β -1,4-Gal-T1 Rabbit Polyclonal Antibody
描述 (Description)	Rabbit polyclonal Antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,ELISA
种属反应性 (Reactivity)	Human,Mouse

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Polyclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	B4GALT1 B4GALT1; GGTB2; Beta-1; 4-galactosyltransferase 1; Beta-1,4-GalTase 1;
别名 (Alternative Names)	Beta4Gal-T1; b4Gal-T1; UDP-Gal:beta-GlcNAc beta-1,4-galactosyltransferase 1; UDP-galactose:beta-N-acetylglucosamine beta-1,4-galactosyltransferase 1
基因 ID (Gene ID)	2683.0
蛋白 ID (SwissProt ID)	P15291.Synthesized peptide derived from the C-terminal region of human β -1,4-Gal-T1.

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
蛋白分子量 (Molecular Weight)	50kDa

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研究背景 (Background)

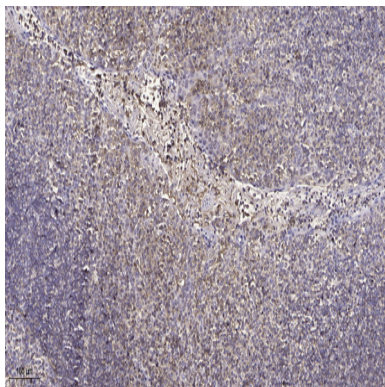
This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, and Xyl. Each 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 lactocatalytic 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 during embryonic development, differentiation, and maintenance of cell functions.,function:The cell surface form functions as a recognition molecule during a variety of cell to cell and cell to matrix interactions, as those occurring during development and egg fertilization, by binding to specific oligosaccharide ligands on opposing cells or in the extracellular matrix.,function:The Golgi complex form catalyzes the production of lactose in the lactating mammary gland and could also be responsible for the synthesis of complex-type N-linked oligosaccharides in many glycoproteins as well as the carbohydrate moieties of glycolipids.,online information:Beta-1,4-galactosyltransferase 1,online information:GlycoGene database,pathway:Protein modification; protein glycosylation.,PTM:The soluble form derives from the membrane forms by proteolytic processing.,similarity:Belongs to the glycosyltransferase 7 family.,subcellular location:Found in trans cisternae of Golgi.,subcellular location:Soluble form found in body fluids.,subunit:Homodimer; and heterodimer with alpha-lactalbumin to form lactose synthase.,tissue specificity:Ubiquitously expressed, but at very low levels in fetal and adult brain.,

研究领域 (Research Area)

Galactose metabolism;N-Glycan biosynthesis;Keratan sulfate biosynthesis;Glycosphingolipid biosynthesis;

图片 (Image Data)

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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) .

注意事项 (Note)

For research use only .