β-1,4-Gal-T1 Rabbit pAb

CatalogNo: YT5007

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse	• WB,IHC,IF,ELISA

MW	Isotype
• 50kD (Observed)	• IgG

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:20000
IF 1:50-200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

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.

Target Information

Gene name B4GALT1

Protein Name Beta-1,4-galactosyltransferase 1

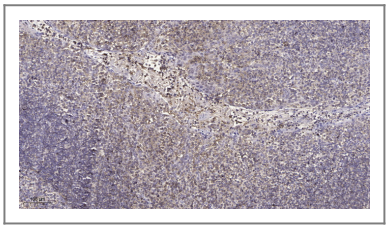
Organism	Gene ID	UniProt ID
Human	2683;	P15291;
Mouse	14595;	P15535;

Cellular Localization [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 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-lactabulmin to form lactose synthase.,tissue specificity:Ubiquitously expressed, but at very low levels in fetal and adult brain.,

Validation Data



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).

Contact information

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Please scan the QR code to access additional product information:
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