

Summary

Production Name	β -1,4-Gal-T3 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	B4GALT3 B4GALT3; Beta-1; 4-galactosyltransferase 3; Beta-1,4-GalTase 3; Beta4Gal-T3; b4Gal-T3;
Alternative Names	UDP-Gal:beta-GlcNAc beta-1,4-galactosyltransferase 3; UDP-galactose:beta-N-acetylglucosamine beta-1,4-galactosyltransferase 3
Gene ID	8703.0
SwissProt ID	O60512.The antiserum was produced against synthesized peptide derived from human B4GALT3. AA range:271-320

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000..
Molecular Weight	49kD

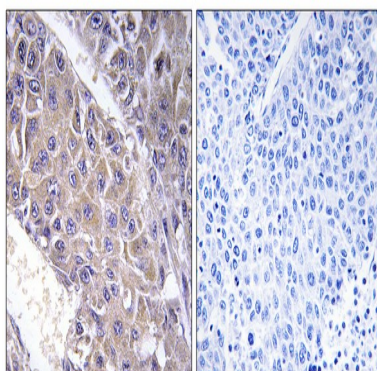
Background

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 encodes an enzyme that may be mainly involved in the synthesis of the first N-acetyllactosamine unit of poly-N-acetyllactosaminylglycopeptide. $\text{UDP-galactose} + \text{N-acetyl-beta-D-glucosaminylglycopeptide} = \text{UDP} + \text{beta-D-galactosyl-(1-}\rightarrow\text{4)-N-acetyl-beta-D-glucosaminylglycopeptide}$. $\text{catalytic activity:UDP-galactose} + \text{N-acetyl-D-glucosamine} = \text{UDP} + \text{N-acetyllactosamine}$. $\text{cofactor:Manganese}$. $\text{function:Responsible for the synthesis of complex-type N-linked oligosaccharides in many glycoproteins as well as the carbohydrate moieties of glycolipids}$. $\text{online information:Beta-1,4-galactosyltransferase 3}$, $\text{online information:GlycoGene database}$, $\text{pathway:Protein modification; protein glycosylation}$. $\text{similarity:Belongs to the glycosyltransferase 7 family}$. $\text{subcellular location:Trans cisternae of Golgi stack}$. $\text{tissue specificity:Found in various tissues. Highest expression in placenta, prostate, testis, ovary, intestine and muscle, and in fetal brain}$.

Research Area

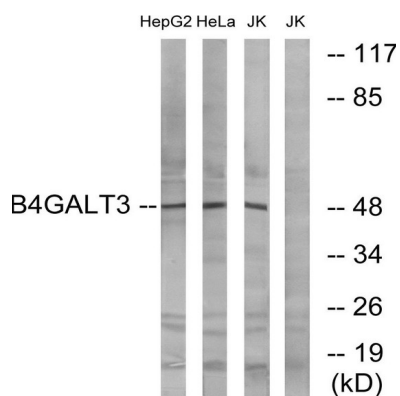
N-Glycan biosynthesis;Keratan sulfate biosynthesis;Glycosphingolipid biosynthesis;

Image Data



Immunohistochemistry analysis of paraffin-embedded human liver carcinoma tissue, using B4GALT3 Antibody. The picture on the right is blocked with the synthesized peptide.

Product Name: β -1,4-Gal-T3 Rabbit Polyclonal Antibody
Catalog #: APRab20345



Western blot analysis of lysates from Jurkat, HeLa, and HepG2 cells, using B4GALT3 Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.