

Product datasheet for TA360642

B4GALT1 Rabbit Polyclonal Antibody

Product data:

Product Type: Primary Antibodies

Applications: WB

Reactivity: Human Host: Rabbit

Clonality: Polyclonal

Immunogen: The immunogen is a synthetic peptide directed towards the C terminal region of human

B4GALT1

Specificity: **Expected reactivity**: Human

Formulation: Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2%

sucrose.

Concentration: lot specific

Purification: Affinity purified Unconjugated Conjugation:

For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small Storage:

aliquots to prevent freeze-thaw cycles.

Shelf life: one year from despatch. Stability:

Predicted Protein Size: 44 kDa

Gene Name: beta-1,4-galactosyltransferase 1

Database Link: NP 001488.2

Entrez Gene 2683 Human

P15291



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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 Nterminal 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 lactose biosynthesis. For the first activity, the enzyme adds galactose to N-acetylglucosamine residues that are either monosaccharides or the nonreducing ends of glycoprotein carbohydrate chains. The second activity is restricted to lactating mammary tissues where the enzyme forms a heterodimer with alpha-lactalbumin to catalyze UDP-galactose + D-glucose <=> UDP + lactose. The two enzymatic forms result from alternate transcription initiation sites and post-translational processing. Two transcripts, which differ only at the 5' end, with approximate lengths of 4.1 kb and 3.9 kb encode the same protein. The longer transcript encodes the type II membrane-bound, trans-Golgi resident protein involved in glycoconjugate biosynthesis. The shorter transcript encodes a protein which is cleaved to form the soluble lactose synthase.

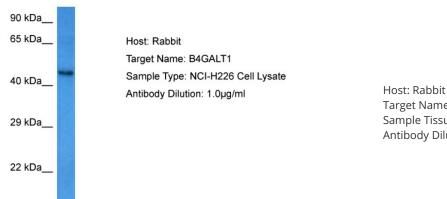
Synonyms: b4Gal-T1; beta4Gal-T1; DKFZp686N19253; GGTB2; GT1; GTB; MGC50983

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Galactose metabolism, Glycosphingolipid biosynthesis - lacto and neolacto series, Keratan

sulfate biosynthesis, Metabolic pathways, N-Glycan biosynthesis

Product images:



Target Name: B4GALT1

Sample Tissue: Human NCI-H226 Whole Cell

Antibody Dilution: 1.0ug/ml