

## PRODUCT INFORMATION

<b>Clone ID</b>	DMC392
<b>Target</b>	B4GALT1
<b>Synonyms</b>	GGTB2; Beta4Gal-T1; b4Gal-T1; Nal synthase
<b>Host Species</b>	Rabbit
<b>Description</b>	Biotinylated Anti-B4GALT1 antibody(DMC392); IgG1 Chimeric mAb
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P15291
<b>IgG type</b>	Rabbit/Human Fc chimeric IgG1
<b>Clonality</b>	Monoclonal
<b>Reactivity</b>	Human
<b>Applications</b>	ELISA
<b>Recommended Dilutions</b>	ELISA 1:5000-10000
<b>Purification</b>	Purified from cell culture supernatant by affinity chromatography
<b>Endotoxin</b>	Less than 1.0 EU/ $\mu$ g by the LAL method. For <1 EU/mg requirements, please contact us for customization.
<b>Formulation &amp; Reconstitution</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
<b>Storage&amp;Shipping</b>	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
<b>Sterility</b>	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 $\mu$ m) prior to use.



**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 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.

**Usage**

Research use only

**Conjugate**

Biotinylated

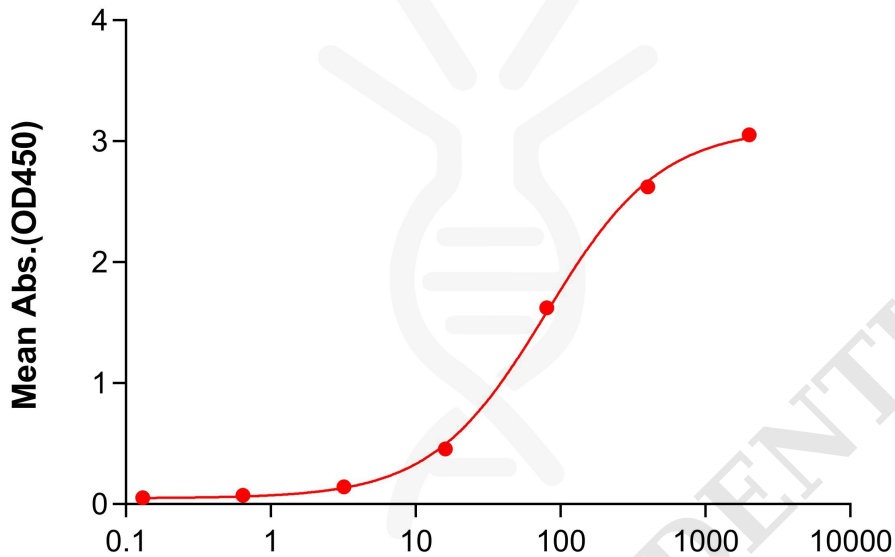
**DIMA Disclaimer**

All DIMA recombinant antibodies are genuinely generated by DIMA Biotech. They are all under patent application. Any protein sequencing or reverse engineering attempt is prohibited. We are actively scr



## Biotinylated Anti-B4GALT1 antibody(DMC392); IgG1 Chimeric mAb ELISA

0.2  $\mu$ g of Human B4GALT1, hFc tagged protein per well



**Biotinylated Anti-B4GALT1 antibody(DMC392); IgG1 Chimeric mAb (ng/mL)**

Figure 1. ELISA plate pre-coated by 2  $\mu$ g/mL (100  $\mu$ L/well) Human B4GALT1 Protein, hFc Tag (PME100703) can bind Biotinylated Anti-B4GALT1 antibody(DMC392); IgG1 Chimeric mAb (DMC100392B) in a linear range of 16-80 ng/mL.

