

PRODUCT INFORMATION

Clone ID	DMC392
Target	B4GALT1
Synonyms	GGTB2; Beta4Gal-T1; b4Gal-T1; Nal synthase
Host Species	Rabbit
Description	Anti-B4GALT1 antibody(DMC392); IgG1 Chimeric mAb
Delivery	In Stock
Uniprot ID	P15291
IgG type	Rabbit/Human Fc chimeric IgG1
Clonality	Monoclonal
Reactivity	Human
Applications	Flow Cyt
Recommended Dilutions	Flow Cyt 1:100
Purification	Purified from cell culture supernatant by affinity chromatography
Formulation & Reconstitution	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.
Storage & Shipping	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.



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

Unconjugated

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 scrutinizing all patent application to ensure no IP infringement.



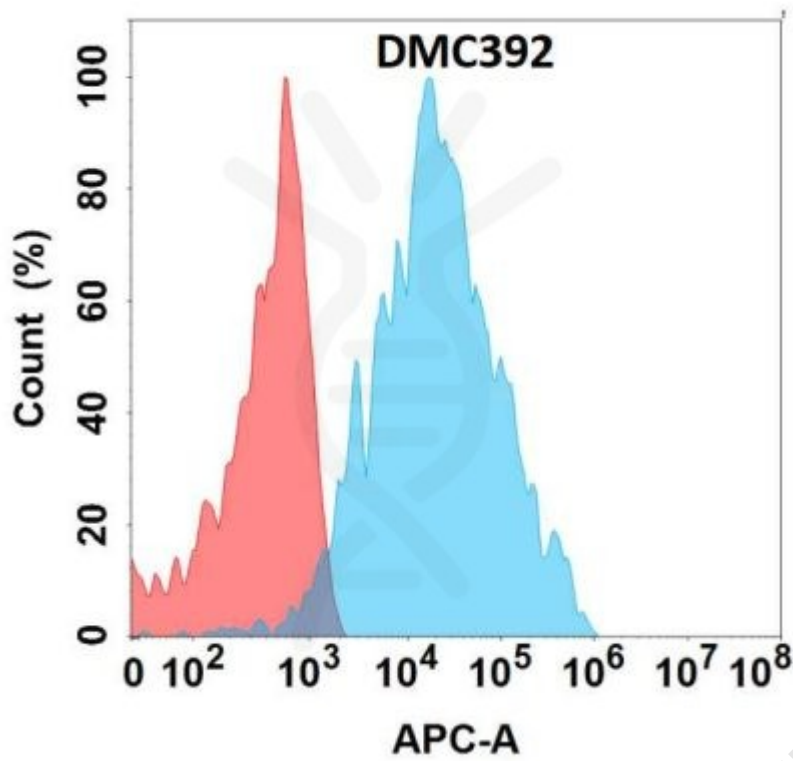


Figure 1. Flow cytometry analysis with Anti-B4GALT1 (DMC392) on Expi293 cells transfected with human B4GALT1 (Blue histogram) or Expi293 transfected with irrelevant protein (Red histogram).

