B4GALT1 (DMC392) IGG1 CHIMERIC MAB

Cat.#: 28210

Product Name: Anti-B4GALT1(DMC392) IgG1 Chimeric Monoclonal Antibody

Synonyms: GGTB2; Beta4Gal-T1; b4Gal-T1; Nal synthase

Description: Anti-B4GALT1 antibody(DMC392) IgG1 Chimeric Monoclonal Antibody

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.

Applications: Flow Cyt

Recommended Dilutions: Flow Cyt 1:100

Host Species: Rabbit

Isotype: Rabbit:Human Fc chimeric IgG1

Purification: Purified from cell culture supernatant by affinity chromatography

Species Reactivity: Human B4GALT1

Constituents: Lyophilized from sterile PBS, pH 7.4. 5 % – 8% trehalose is added as protectants before lyophilization.

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).

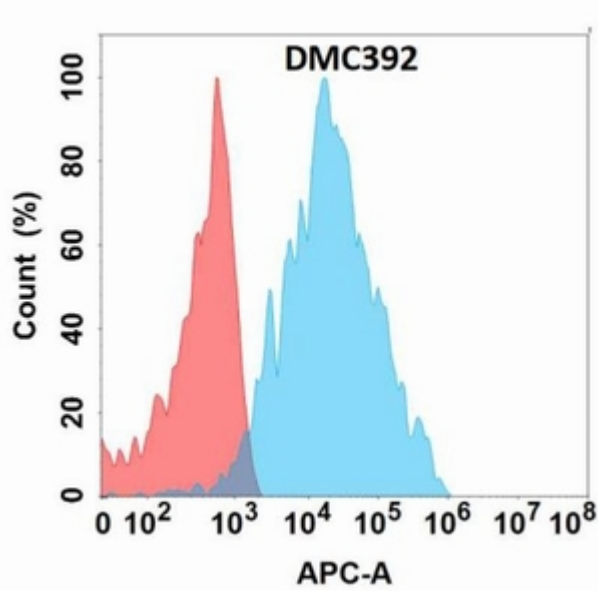

Figure 1. Flow cytometry analysis with Anti-B4GALT1 (DMC392) on Expi293 cells transfected with human B4GALT1 (Blue histogram) or Expi293 transfected with irrelevant protein (Red histogram).