Rat β-1,3-Glucuronyltransferase 1/B3GAT1 Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 882302

Catalog Number: FAB6698R

100 µg

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat β-1,3-Glucuronyltransferase 1/B3GAT1 in ELISA.
Source	Monoclonal Mouse IgG_1 Clone # 882302
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat β-1,3-Glucuronyltransferase 1/B3GAT1 Asp75-Ile347 Accession # NP_445455
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

B3GAT1 is a key enzyme involved in human natural killer-1 (HNK-1) epitope synthesis. It adds a glucuronic residue to the terminal lactosamine residue (Galβ1-4GlcNAc-) of a glycoprotein or glycolipid, which can be further sulfated to become the HNK-1 epitope, a unique trisaccharide structure, HSO_3-3GlcAβ1-3Galβ1-4GlcNAc- (1, 2). The enzyme activity was found to be enhanced in the presence of sphingomyelin and phosphatidylinositol (3).The HNK-1 carbohydrate epitope is characteristically expressed on a series of cell adhesion molecules in addition to some glycolipids in the extracellular matrix and on the cell surface in the nervous system, where it is involved in cell-cell and cell-substratum interaction and recognition during the development of the nervous system (4). Like most known glycosyltransferases, B3GAT1 is a type II Golgi-resident transmembrane protein with a short N-terminal cytoplasmic domain and a single-pass transmembrane domain followed by an enzymatic domain in the lumen of Golgi apparatus. The enzyme activity was assayed using a phosphatase-coupled method (5).

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