Human Fucosyltransferase 7/FUT7 Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 795116

Catalog Number: FAB64091R

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fucosyltransferase 7/FUT7 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human Fucosyltransferase 5 is observed.
Source	Monoclonal Mouse IgG_{2A} Clone # 795116
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Fucosyltransferase 7/FUT7 Ala36-Ala342 Accession # Q11130
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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
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

N-glycans, O-glycans and glycolipids are frequently fucosylated at terminal sites. Therefore, fucose is often part of a sugar epitope with important biological function. Well known fucose containing glycans include Lewis and ABO blood group antigens. Lewis epitopes are key elements involved in the leukocyte homing and extravasation process and thus are important for lymphocyte maturation and natural defense functions. Fucose-containing glycans also play critical roles in cell signaling and development (1). More than 10 fucosyltransferases have been cloned (2). FUT1 and FUT2 are α1-2 fucosyltransferases and are responsible for ABO blood-group antigen synthesis. FUT8 is an α1-6 fucosyltransferase that adds a fucose to the chitobiose core of N-glycans (3). FUT3, FUT4, FUT5, FUT6, FUT7 and FUT9 are α1-3 or α1-4 fucosyltransferases and are responsible for Lewis antigen generation. FUT7 plays an exclusive role for the biosynthesis of sialyl Lewis X epitope (NeuAcα2,3Galβ1,4[Fucα1,3]GlcNAc) that serves as a ligand in the E-selectin and P-selectin mediated adhesion of leukocytes to activated endothelium or platelets (4, 5, 6). Expression of FUT7 is increased by hypoxia in human colon cancer cell lines (7). Within aa 36-342, human FUT7 shares 84% aa sequence identity with mouse and rat FUT7.

PRODUCT SPECIFIC NOTICES

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475