

#### DESCRIPTION

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| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Fucosyltransferase 7/FUT7 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human Fucosyltransferase 5 is observed.                                                                                                  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2A</sub> Clone # 795116                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant human Fucosyltransferase 7/FUT7<br>Ala36-Ala342<br>Accession # Q11130                                                                                                                                               |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | 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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