Human Ficolin-3 Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 296134

Catalog Number: FAB2367T

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Ficolin-3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Ficolin-2 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 296134
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Ficolin-3 Lys22-Arg299 Accession # O75636-1
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.

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

Human Ficolin-3 (fibrinogen/collagen-like), also called H-ficolin and, previously, Hakata antigen or thermolabile β-2 macroglycoprotein, is a member of the ficolin family of secreted pattern recognition proteins that belong to the lectin complement activation pathway (1, 2). Ficolin-3 is expressed by bile duct epithelial cells and hepatocytes, and is released into the bile and circulation, where it averages 18 µg/mL (3, 4). It is also secreted by bronchial and alveolar epithelial cells in the lung (3). Mature human Ficolin-3 shares 46% and 52% amino acid (aa) identity with human Ficolin-1 and Ficolin-2, respectively. Ficolin-3 has only been identified in primates and is likely a pseudogene in other species (5). The 35 kDa, 288 aa human Ficolin-3 (isoform 2) contains a signal sequence, an N-terminal collagen domain and a C-terminal fibrinogen-like domain that includes a calcium binding site and two potential N-glycosylation sites. Isoform 1 contains an additional 11 aa between the collagen and fibrinogen-like domains. The collagen domain mediates trimer formation, and a ~650 kDa, 18 subunit oligomer is formed by disulfide links at the N-terminus (2, 6, 7). Ficolin-3 binds a limited set of carbohydrates containing mannose, galactose or D-fucose (2, 6). Binding of microbial carbohydrates has been clearly demonstrated only for the PSA antigen of *Aerococcus viridans* (4, 8, 9). Pathogen recognition initiates an immune response involving the calcium-dependent interaction of Ficolin-3 with the MBL-associated serine protease (MASP) complex. This cleaves C4 to activate the complement pathway (4, 9). In a secondary role, Ficolins 2 and 3 bind apoptotic cells, activating complement cascades that assist in clearance of the cells (10). Circulating antibodies to Ficolin-3 have been identified in systemic lupus erythematosus (7).

PRODUCT SPECIFIC NOTICES

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