

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Ficolin-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Ficolin-3 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 297018
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Ficolin-2 Leu26-Ala313 Accession # Q15485
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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-2 (fibrinogen/collagen-like; previously called L-ficolin or ficolin-B) is a member of the ficolin family of secreted pattern recognition proteins that participate in the lectin complement activation pathway (1-4). Ficolin-2 is expressed in the liver and released into the circulation (2). The 35-40 kDa, 313 amino acid (aa) human Ficolin-2 contains a 25 aa 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. The collagen domain mediates trimer formation. Larger homo-multimers are formed by disulfide links at the N-terminus, the most prominent of which is a 12 subunit oligomer (3, 5). Ficolin-2 binds microbial ligands that contain acetylated compounds (6). Notably, this includes N-acetyl glucosamine in compounds such as lipoteichoic acid in gram-positive bacteria. It also binds fungal 1,3-β-D-glucan (4, 7, 8). Pathogen recognition by Ficolin-2 initiates an immune response that involves calcium-dependent interaction of Ficolin-2 with the MBL-associated serine protease (MASP) complex. This complex cleaves C4 to activate the complement pathway (4, 7, 8). In a secondary role, Ficolin-2 is known to bind late apoptotic and necrotic cells, probably through the recognition of exposed DNA. This also activates the complement cascade that assists in clearance of cells (9, 10). Mature human Ficolin-2 shares 70%, 72%, 76% and 78% aa identity with mouse, rat, cow and pig Ficolin-2, respectively. It shares 84% and 52% aa identity with human ficolin-1 and ficolin-3, respectively. Single nucleotide polymorphisms are common in human Ficolin-2. Some affect serum concentration, while others can increase or decrease ligand binding (11).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.