

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Ficolin-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 25% cross-reactivity with recombinant human (rh) Ficolin-2 is observed and less than 1% cross-reactivity with rhFicolin-                                      |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Ficolin-1<br>Gln28-Ala326<br>Accession # O00602                                                                                                                                                                       |
| <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.

**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-1 (fibrinogen/collagen-like), also called M-ficolin, is a member of the ficolin family of secreted pattern recognition proteins in the lectin complement activation pathway (1-3). Ficolin-1 is expressed by monocytes, neutrophils and type II alveolar epithelial cells (2-5). It is proposed to be a locally-acting lectin released in a regulated manner (4). Ficolin-1 is not found in plasma, but is detected on the surface of circulating monocytes (4-6). The 35 kDa, 326 amino acid (aa) human Ficolin-1 contains a 28 aa signal sequence, an N-terminal collagen domain and a C-terminal fibrinogen-like (FBG) domain that includes a calcium binding site and one potential N-glycosylation site. Both the collagen and FBG domains mediate trimer formation (7). Like Ficolin-2, larger homo-multimers of Ficolin-1 exist and are likely formed by disulfide bonds at the N-terminus. Sizes corresponding to 12 or 18 subunit oligomers are reported (4, 6, 7). The FBG domain of Ficolin-1 binds microbial ligands that contain acetylated compounds (6). Ligands identified include N-acetyl glucosamine, N-acetyl galactosamine and sialyl-N-acetylglucosamine (4-7). Like other ficolins, Ficolin-1 associates with, and activates the MBL-associated serine protease (MASP) complex, which activates the complement pathway by cleaving C4, contributing to the innate immune response (4-6). Mature human Ficolin-1 shares 76%, 61%, 61%, 76% and 81% aa identity with mouse Ficolin-2 (8), and mouse, rat, canine and porcine Ficolin-1, respectively. It shares 84% and 46% aa identity with human Ficolin-2 and Ficolin-3, respectively. The Ficolin-1 gene is polymorphic, showing at least ten single nucleotide polymorphisms in the promoter and coding regions (1).

## PRODUCT SPECIFIC NOTICES

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