Human Ficolin-1 Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4209R
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	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-
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Ficolin-1 Gln28-Ala326 Accession # O00602
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.

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-acetyllactosamine (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).

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