

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Complement Factor H in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse Complement Factor H is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Complement Factor H Ser860-Arg1231 Accession # P08603
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.
Immunohistochemistry	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

Complement Factor H is a 155 kDa glycoprotein that provides critical negative regulation to the alternative pathway of complement cascade. It is secreted by Kupffer cells, hepatocytes, vascular endothelial cells, and platelets, and circulates in the serum at high concentration (1). Complement Factor H is composed of 20 SCRs (short consensus repeats), each of which consists of approximately 60 amino acids with four invariant Cys residues (2). Alternate splicing generates an isoform that is truncated following SCR7. Complement Factor H interacts with cell surface polyanions including heparin and sialoglycoproteins (3-6), and immobilized Complement Factor H supports the CD11b/CD18 integrin-dependent adhesion of neutrophils (7). It prevents local complement activation by sequestering complement component C3b, accelerating the decay of C3 and C5 convertases, and functions as a cofactor for the C3b inactivator, Factor I (1, 3, 6, 8). The recombinant protein expressed here corresponds to SCR15-20, which encompass the primary binding sites for heparin and C3b, as well as for the peptide hormone adrenomedullin (4, 9-11). Within SCR15-20, human Complement Factor H shares 60% and 63% amino acid sequence identity with mouse and rat Complement Factor H, respectively. Dozens of mutations clustered in SCR15-20 are associated with atypical hemolytic uremic syndrome, a disorder characterized by anemia, thrombocytopenia, and renal failure (12). Binding of Complement Factor H to tumor cell-associated dentin matrix protein 1, bone sialoprotein, or osteopontin results in the protection of that cell from complement-mediated lysis (13, 14). A variety of pathogenic microbes also express Complement Factor H binding molecules that interfere with immune clearance of the infection (15).

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.