Human Complement Factor H Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF4779

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
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

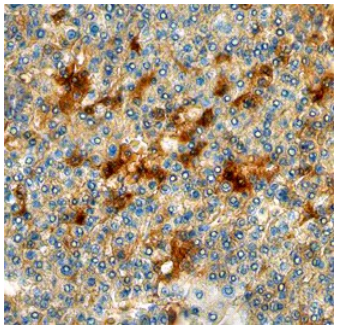
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Complement Factor H aa 860-1231 (Catalog # 4779-FH)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Complement Factor H in Human Liver. Complement Factor H was detected in immersion fixed paraffin-embedded sections of human liver using Goat Anti-Human Complement Factor H Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4779) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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).

References:

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