

Active Recombinant Human CFH Protein, His-tagged

Cat. No. CFH-11050H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human CFH Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Ile 868 - Arg 1231 (Accession # P08603). This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Ile 868
Species	Human
Source	HEK293
ProteinLength	868-1231 aa
Description	Complement Factor H (CFH) composed of 20 repetitive units of 60 amino acids, named short consensus repeats (SCR) or complement control protein modules (CCP), arranged in a continuous fashion. CFH is amongst the most abundant complement components in human blood, where the liver is the major source of CFH protein in vivo. The CFH molecule includes different interaction sites for C3b and polyanions which delineate distinct functional domains at the N- and C-termini. The C3b binding site in SCR1-4 is the only site essential for the factor I co-factor activity of factor H. Similarly, the C3b/polyanions-binding site located within SCR19-20 is the most important site for preventing alternative pathway activation on host cells. Mutations in the CFH gene are associated with severe and diverse diseases including the rare renal disorders hemolytic uremic syndrome (HUS) and membranoproliferative (MPGN) also termed dense deposit disease (DDD), as well as the more frequent retinal disease age related macular degeneration (AMD).

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Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.
Bio-activity	Immobilized Human CFH Protein, His Tag at 10 µg/mL (100 µL/well) can bind Heparin Biotin with a linear range of 0.01-1.25 µg/mL.
Molecular Mass	The protein has a calculated MW of 42.7 kDa. The protein migrates as 55-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity	>90% as determined by SDS-PAGE. >90% as determined by SEC-MALS.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Gene Name	CFH complement factor H [Homo sapiens (human)]
Official Symbol	CFH
Synonyms	CFH; complement factor H; H factor 1 (complement), HF, HF1, HF2; age related maculopathy susceptibility 1; ARMS1; beta 1H; FHL1; H factor 2 (complement); HUS; beta-1H; factor H; factor H-like 1; beta-1-H-globulin; H factor 1 (complement); adrenomedullin binding protein; complement factor H, isoform b; age-related

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maculopathy susceptibility 1; FH; HF; HF1; HF2; AHUS1; AMBP1; ARMD4; CFHL3;
MGC88246;

Gene ID 3075

mRNA Refseq NM_000186

Protein Refseq NP_000177

MIM 134370

UniProt ID P08603

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