Factor H (CFH) Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	Factor H (CFH), Monoclonal Antibody
Full Product Name	Anti-Factor H Antibody, Mouse Monoclonal
Product Gene Name	anti-CFH antibody
Product Synonym Names	Complement Factor H/CFH Antibody, Mouse MAb; complement factor H; Anti-AHUS1 Antibody; Anti-AMBP1 Antibody; Anti-ARMD4 Antibody; Anti-ARMS1 Antibody; Anti-CFHL3 Antibody; Anti-FH Antibody; Anti-FHL1 Antibody; Anti-HF Antibody; Anti-HF1 Antibody; Anti-HF2 Antibody; Anti-HUS Antibody
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	8E5E2
Host	Mouse
Species Reactivity	Human
Form/Format	Liquid; 0.2um filtered solution in PBS
Purity/Purification	Protein A
Specificity	Human Complement Factor H/CFH. No cross-reactivity in ELISA with Human cell lysate (293 cell line)
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Molecular Weight	1231 (449)
Chromosome Location	Chromosome: 1; NC_000001.10 (196621008..196716634). Location: 1q32
OMIM	126700
3D Structure	ModBase 3D Structure for P08603
Immunogen	Recombinant Human Complement Factor H/CFH Protein
Conjugation	Unconjugated
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human Complement Factor H/CFH (rh Complement Factor H/CFH). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Product Categories/Family for anti-CFH antibody	Complement Activation Pathways
Applications Tested/Suitable for anti-CFH antibody	ELISA (EIA) (Det)
Application Notes for anti-CFH antibody	ELISA (Det): This antibody will detect Human Complement Factor H in ELISA pair set. In a sandwich ELISA, it can be used as detection antibody when paired with.

Related Product Information for anti-CFH antibody	Complement factor H, also known as H factor 1, and CFH, is a sialic acid containing glycoprotein that plays an integral role in the regulation of the complement-mediated immune system that is involved in microbial defense, immune complex processing, and programmed cell death. Factor H protects host cells from injury resulting from unrestrained complement activation. CFH regulates complement activation on self cells by possessing both cofactor activity for the Factor I mediated C3b cleavage, and decay accelerating activity against the alternative pathway C3 convertase, C3bBb. CFH protects self cells from complement activation but not bacteria/viruses. Due to the central role that CFH plays in the regulation of complement, there are many clinical implications arrising from aberrant CFH activity. Mutations in the Factor H gene are associated with severe and diverse diseases including the rare renal disorders hemolytic uremic syndrome (HUS) and membranoproliferative glomerulonephritis (MPGN) also termed dense deposit disease (DDD), membranoproliferative glomuleronephritis type II or dense deposit disease, as well as the more frequent retinal disease age related macular degeneration (AMD). In addition to its complement regulatory activities, factor H has multiple physiological activities and 1) acts as an extracellular matrix component, 2) binds to cellular receptors of the integrin type, and 3) interacts with a wide selection of ligands, such as the C-reactive protein, thrombospondin, bone sialoprotein, osteopontin, and heparin.
Product References and Citations for anti-CFH antibody	Zipfel PF. (2001) Complement factor H: physiology and pathophysiology. Semin Thromb Hemost. 27(3): 191-9.Zipfel PF, et al. (2008) The complement fitness factor H: role in human diseases and for immune escape of pathogens, like pneumococci. Vaccine. 26 Suppl 8: I67-74.Ferreira VP, et al. (2010) Complement control protein factor H: the good, the bad, and the inadequate. Mol Immunol. 47(13): 2187-97.Donoso LA, et al. (2010) The role of complement Factor H in age-related macular degeneration: a review. Surv Ophthalmol. 55(3): 227-46.
Other Notes	Small volumes of anti-CFH antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CFH purchase	MBS8103682 is an antibody targeting CFH. Also known as Anti-Factor H Antibody, Mouse Monoclonal. Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CFH. It may not necessarily be applicable to this product.

NCBI GI #	62739186
NCBI GeneID	3075
NCBI Accession #	NP_000177.2
UniProt Primary Accession #	P08603
UniProt Secondary Accession #	P78435; Q14570; Q2TAZ5; Q38G77; Q5TFM3; Q8N708; Q9NU86; A5PL14
UniProt Related Accession #	P08603
GenBank Nucleotide #	NM_000186.3
NCBI Official Full Name	complement factor H isoform a
NCBI Official Synonym Full Names	complement factor H
NCBI Official Symbol	CFH
NCBI Official Synonym Symbols	FH; HF; HF1; HF2; HUS; FHL1; AHUS1; AMBP1; ARMD4; ARMS1; CFHL3
UniProt Protein Name	Complement factor H
UniProt Synonym Protein Names	H factor 1
Protein Family	Complement factor
UniProt Gene Name	CFH
UniProt Synonym Gene Names	HF; HF1; HF2
UniProt Entry Name	CFAH_HUMAN
NCBI Protein Information	complement factor H; beta-1H; factor H-like 1; beta-1-H-globulin; H factor 1 (complement); H factor 2 (complement); adrenomedullin binding protein; complement factor H, isoform b; age-related maculopathy susceptibility 1

UniProt Comments for CFH	CFH: Factor H functions as a cofactor in the inactivation of C3b by factor I and also increases the rate of dissociation of the C3bBb complex (C3 convertase) and the (C3b)NBB complex (C5 convertase) in the alternative complement pathway. Genetic variations in CFH are associated with basal laminar drusen (BLD); also known as drusen of Bruch membrane or cuticular drusen or grouped early adult-onset drusen. Drusen are extracellular deposits that accumulate below the retinal pigment epithelium on Bruch membrane. Basal laminar drusen refers to an early adult-onset drusen phenotype that shows a pattern of uniform small, slightly raised yellow subretinal nodules randomly scattered in the macula. In later stages, these drusen often become more numerous, with clustered groups of drusen scattered throughout the retina. In time these small basal laminar drusen may expand and ultimately lead to a serous pigment epithelial detachment of the macula that may result in vision loss. Defects in CFH are the cause of complement factor H deficiency (CFHD). A disorder that can manifest as several different phenotypes, including asymptomatic, recurrent bacterial infections, and renal failure. Laboratory features usually include decreased serum levels of factor H, complement component C3, and a decrease in other terminal complement components, indicating activation of the alternative complement pathway. It is associated with a number of renal diseases with variable clinical presentation and progression, including membranoproliferative glomerulonephritis and atypical hemolytic uremic syndrome. Defects in CFH are a cause of susceptibility to hemolytic uremic syndrome atypical type 1 (AHUS1). An atypical form of hemolytic uremic syndrome. It is a complex genetic disease characterized by microangiopathic hemolytic anemia, thrombocytopenia, renal failure and absence of episodes of enterocolitis and diarrhea. In contrast to typical hemolytic uremic syndrome, atypical forms have a poorer prognosis, with higher death rates and frequent progression to end-stage renal disease. Susceptibility to the development of atypical hemolytic uremic syndrome can be conferred by mutations in various components of or regulatory factors in the complement cascade system. Other genes may play a role in modifying the phenotype. Genetic variation in CFH is associated with age-related macular degeneration type 4 (ARMD4). ARMD is a multifactorial eye disease and the most common cause of irreversible vision loss in the developed world. In most patients, the disease is manifest as ophthalmoscopically visible yellowish accumulations of protein and lipid (known as drusen) that lie beneath the retinal pigment epithelium and within an elastin- containing structure known as Bruch membrane. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 1q32 Cellular Component: extracellular space; extracellular region Molecular Function: heparin binding; heparan sulfate proteoglycan binding; protein binding Biological Process: complement activation, alternative pathway; regulation of complement activation; innate immune response; complement activation Disease: Complement Factor H Deficiency; Basal Laminar Drusen; Hemolytic Uremic Syndrome, Atypical, Susceptibility To, 1; Macular Degeneration, Age-related, 4
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