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Anti-Factor I Picoband Antibody

Catalog # ABO12620

Product Information

Application	WB
Primary Accession	P05156
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Complement factor I(CFI) detection. Tested with WB in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3426
Other Names	Complement factor I, 3.4.21.45, C3B/C4B inactivator, Complement factor I heavy chain, Complement factor I light chain, CFI, IF
Calculated MW	65750
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Secreted, extracellular space.
Tissue Specificity	Plasma.
Source	Eukaryota
Protein Name	Complement factor I
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human Factor I recombinant protein (Position: K19-D220). Human Factor I shares 70.7% and 71.2% amino acid (aa) sequence identity with mouse and rat Factor I, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

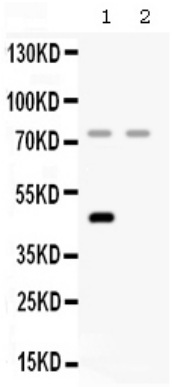
Protein Information

Name	CFI
Synonyms	IF
Function	Trypsin-like serine protease that plays an essential role in regulating the immune response by controlling all complement pathways. Inhibits these pathways by cleaving three peptide bonds in the alpha- chain of C3b and two bonds in the alpha-chain of C4b thereby inactivating these proteins (PubMed:17320177, PubMed:7360115). Essential cofactors for these reactions include factor H and C4BP in the fluid phase and membrane cofactor protein/CD46 and CR1 on cell surfaces (PubMed:12055245, PubMed:2141838, PubMed:9605165). The presence of these cofactors on healthy cells allows degradation of deposited C3b by CFI in order to prevent undesired complement activation, while in apoptotic cells or microbes, the absence of such cofactors leads to C3b-mediated complement activation and subsequent opsonization (PubMed:28671664).
Cellular Location	Secreted, extracellular space. Secreted
Tissue Location	Expressed in the liver by hepatocytes (PubMed:6327681). Also present in other cells such as monocytes, fibroblasts or keratinocytes (PubMed:17320177, PubMed:6444659)

Background

Complement factor I, also known as C3b/C4b inactivator, is a protein that in humans is encoded by the CFI gene. This gene encodes a serine proteinase that is essential for regulating the complement cascade. The encoded preproprotein is cleaved to produce both heavy and light chains, which are linked by disulfide bonds to form a heterodimeric glycoprotein. This heterodimer can cleave and inactivate the complement components C4b and C3b, and it prevents the assembly of the C3 and C5 convertase enzymes. Defects in this gene cause complement factor I deficiency, an autosomal recessive disease associated with a susceptibility to pyogenic infections. Mutations in this gene have been associated with a predisposition to atypical hemolytic uremic syndrome, a disease characterized by acute renal failure, microangiopathic hemolytic anemia and thrombocytopenia. Primary glomerulonephritis with immune deposits and age-related macular degeneration are other conditions associated with mutations of this gene.

Images



Western blot analysis of Factor I expression in rat liver extract (lane 1) and HELA whole cell lysates (lane 2). Factor I at 75KD; 45KD was detected using rabbit anti-Factor I Antigen Affinity purified polyclonal antibody (Catalog # ABO12620) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.