10320 Camino Santa Fe, Suite A
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-Factor I Picoband Antibody

Catalog # ABO12620

Specification

Anti-Factor I Picoband Antibody - 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.

Anti-Factor I Picoband Antibody - 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 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization
Secreted, extracellular space.

Tissue Specificity
Plasma.

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.**

Anti-Factor I Picoband Antibody - 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)

Anti-Factor I Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Factor I Picoband Antibody - Images

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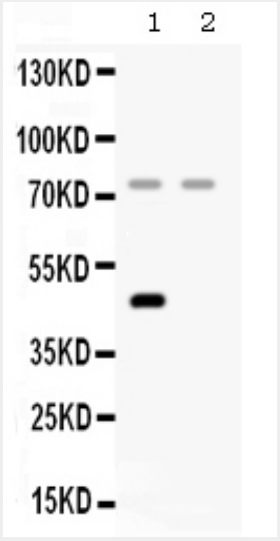

Western blot analysis of Factor I expression in rat liver extract (lane 1) and HELA whole cell lysates (lane 2). Factor I at 75KD; 45KD was detected using rabbit anti-Factor I Antigen Affinity purified polyclonal antibody (Catalog # ABO12620) at 0.5 ??g/mL. The blot was developed using chemiluminescence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

Anti-Factor I Picoband Antibody - 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.