# abcam

# Product datasheet

# Human Factor B ELISA Kit ab137973

4 References 4 Images

Overview

**Precision** 

Product name Human Factor B ELISA Kit

**Detection method**Colorimetric

Sample	n	Mean	SD	CV%
Overall				5.3%

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Overall				10.2%

Sample type Cell culture supernatant, Saliva, Milk, Serum, Plasma, Tissue, Cell Lysate, Cerebral Spinal Fluid

Assay type Sandwich (quantitative)

Sensitivity = 0.71 ng/ml

**Range** 2.188 ng/ml - 140 ng/ml

Recovery 98 %
Assay time 4h 00m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Abcam's Factor B Human in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed

for the quantitative measurement of Human Factor B in plasma, serum, saliva, milk, and cell

culture supernatants.

A Factor B specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Factor B specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Factor B captured in plate.

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The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

**Platform** 

Microplate

#### **Properties**

#### Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent M Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Human Factor B Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
Factor B Microplate (12 x 8 well strips)	1 unit
Factor B Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

# **Function**

Factor B which is part of the alternate pathway of the complement system is cleaved by factor D into 2 fragments: Ba and Bb. Bb, a serine protease, then combines with complement factor 3b to generate the C3 or C5 convertase. It has also been implicated in proliferation and differentiation of preactivated B-lymphocytes, rapid spreading of peripheral blood monocytes, stimulation of lymphocyte blastogenesis and lysis of erythrocytes. Ba inhibits the proliferation of preactivated B-lymphocytes.

#### Involvement in disease

Defects in CFB are a cause of susceptibility to hemolytic uremic syndrome atypical type 4 (AHUS4) [MIM:612924]. 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. Note=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.

#### Sequence similarities

Belongs to the peptidase S1 family.

Contains 1 peptidase S1 domain.

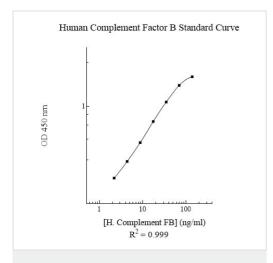
Contains 3 Sushi (CCP/SCR) domains.

Contains 1 VWFA domain.

Cellular localization

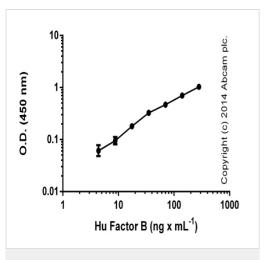
Secreted.

# **Images**



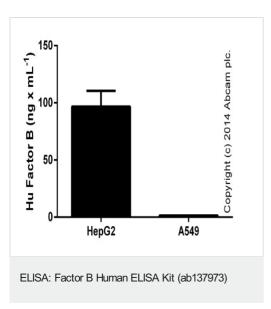
Human Complement Factor B typical standard curve

Representative Standard Curve using ab137973

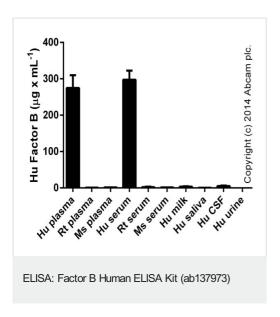


ELISA: Factor B Human ELISA Kit (ab137973)

Standard curve with background signal subtracted (duplicates; +/-SD).



Factor B measured in culture supernatants (dilution 1/1-1/30; duplicates +/- SD).



Factor B in biological fluids (duplicates +/- SD). Tested dilution ranges: human plasma and serum at 1/1000-1/30000, others at 1/1-1/300.

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