Human Factor B ELISA Kit ab137973

Overview

Product name: Human Factor B ELISA Kit
Detection method: Colorimetric

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td>5.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td>10.3%</td>
</tr>
</tbody>
</table>

Sample type: Cell culture supernatant, Saliva, Milk, Urine, Serum, Plasma
Assay type: Sandwich (quantitative)
Sensitivity: 0.8 ng/ml
Range: 4.375 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.
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.

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

**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.
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.
Representative Standard Curve using ab137973

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