Human Complement C4-Binding Protein ELISA Kit
ab222866

Product Overview

**Product name:** Human Complement C4-Binding Protein ELISA Kit

**Detection method:** Colorimetric

**Precision**

<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%</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>7.1%</td>
</tr>
</tbody>
</table>

**Sample type:** Cell culture supernatant, Saliva, Milk, Urine, Serum, Plasma, Cerebral Spinal Fluid

**Assay type:** Sandwich (quantitative)

**Sensitivity:** 0.9 ng/ml

**Range:** 0.938 ng/ml - 60 ng/ml

**Recovery:** 97%

**Assay time:** 4h 00m

**Assay duration:** Multiple steps standard assay

**Species reactivity**

Reacts with: Human

Does not react with: Mouse, Rat, Cow, Dog, Pig, Monkey

**Product overview**

ab222866 Human Complement C4-Binding Protein ELISA Kit is designed for the quantitative measurement of Complement C4-Binding Protein in plasma, serum, urine, milk, saliva, cerebrospinal fluid (CSF), and cell culture samples.

The kit employs a quantitative sandwich enzyme immunoassay technique that measures human Complement C4-Binding Protein (C4BP) in less than 4 hours. A polyclonal antibody specific for human complement C4BP has been pre-coated onto a 96-well microplate with removable strips. Complement C4BP in standards and samples is sandwiched by the immobilized antibody and biotinylated polyclonal antibody specific for complement C4BP, which is recognized by a...
streptavidin-peroxidase conjugate. All unbound material is washed away and a peroxidase enzyme substrate is added. The color development is stopped and the intensity of the color is measured.

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

**Notes**
Complement component C4-binding protein (C4BP) regulates the complement system by accelerating the decay of the complement component C3 convertase and by acting as a cofactor to the serine protease factor I in the degradation of C4b. C4BP is a high molecular mass (570 kDa) glycoprotein and is present in plasma in various isoforms with different alpha beta composition. The major form of C4BP is composed of seven identical 70-kDa alpha chains, each containing a binding site for the complement protein C4b, and a unique 45 kDa beta chain which contains a binding site for the vitamin K-dependent protein S. C4BP was overexpressed in the synovial membranes of patients with rheumatoid arthritis. It was detected in amyloid-beta plaques and on apoptotic cells.

**Tested applications**
Suitable for: Sandwich ELISA

**Platform**
Pre-coated microplate (12 x 8 well strips)

**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 N Concentrate</td>
<td>1 x 30ml</td>
</tr>
<tr>
<td>20X Wash Buffer Concentrate</td>
<td>2 x 30ml</td>
</tr>
<tr>
<td>Anti-Human Complement C4BP coated Microplate (12 x 8 wells)</td>
<td>1 unit</td>
</tr>
<tr>
<td>50X Biotinylated Human Complement C4BP</td>
<td>1 x 120µl</td>
</tr>
<tr>
<td>Chromogen Substrate</td>
<td>1 x 8ml</td>
</tr>
<tr>
<td>Human Complement C4BP 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 12ml</td>
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</table>

**Function**
Controls the classical pathway of complement activation. It binds as a cofactor to C3b/C4b inactivator (C3bINA), which then hydrolyzes the complement fragment C4b. It also accelerates the degradation of the C4bC2a complex (C3 convertase) by dissociating the complement fragment C2a. It also interacts with anticoagulant protein S and with serum amyloid P component. The beta chain binds protein S.

**Sequence similarities**
Contains 3 Sushi (CCP/SCR) domains.

**Cellular localization**
Secreted.
Applications

Our Abpromise guarantee covers the use of ab222866 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

Images

Example of human Complement C4-Binding Protein standard curve.

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