Product datasheet

Human Factor XII ELISA Kit ab108835

Overview

Product name: Human Factor XII 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%</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, Milk, Urine, Serum, Plasma
Assay type: Sandwich (quantitative)
Sensitivity: 0.02 ng/ml
Range: 6.25 ng/ml - 100 ng/ml
Recovery: 98%
Assay time: 4h 00m
Assay duration: Multiple steps standard assay

Species reactivity: Reacts with: Human

Product overview:

Abcam’s Factor XII Human in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Factor XII concentrations in plasma, serum, milk, urine and cell culture supernatants.

A Factor XII specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Factor XII specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Complex 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 XII captured in plate.
Get results in 90 minutes with Human Factor XII ELISA Kit (ab192144) from our SimpleStep ELISA® range.

**Tested applications**

**Suitable for:** Sandwich ELISA

**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>Factor XII Standard</td>
<td>2 vials</td>
</tr>
<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>40X Biotinylated Human Factor XII Antibody</td>
<td>1 x 150µl</td>
</tr>
<tr>
<td>Chromogen Substrate</td>
<td>1 x 8ml</td>
</tr>
<tr>
<td>Factor XII Microplate (12 x 8 well strips)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Sealing Tapes</td>
<td>3 units</td>
</tr>
<tr>
<td>Stop Solution</td>
<td>1 x 12ml</td>
</tr>
</tbody>
</table>

**Function**

Factor XII is a serum glycoprotein that participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha-factor XIIa and then trypsin cleaves it to beta-factor XIIa. Alpha-factor XIIa activates factor XI to factor Xla.

**Involvement in disease**

Factor XII deficiency
Hereditary angioedema 3

**Sequence similarities**

Belongs to the peptidase S1 family.
Contains 2 EGF-like domains.
Contains 1 fibronectin type-I domain.
Contains 1 fibronectin type-II domain.
Contains 1 kringle domain.
Contains 1 peptidase S1 domain.

**Post-translational modifications**

Factor XII is activated by kallikrein in alpha-factor XIIa, which is then further converted by trypsin into beta-factor XIIa. Alpha-factor XIIa is composed of the NH2-terminal heavy chain (Coagulation factor XIIa heavy chain) and the COOH-terminal light chain (Coagulation factor XIIa light chain, connected by a disulfide bond. Beta-factor XIIa is composed of 2 chains linked by a disulfide bond, a light chain (Beta-factor XIIa part 2), corresponding to the COOH-terminal light chain (Coagulation factor XIIa light chain) and a nonapeptide (Beta-factor XIIa part 1). O- and N-glycosylated. The O-linked polysaccharides were not identified, but are probably the mucin type linked to GalNAc.
Cellular localization

Secreted.

Applications

Our Abpromise guarantee covers the use of **ab108835** 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>Use at an assay dependent dilution.</td>
<td></td>
</tr>
</tbody>
</table>

Images

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

Factor XII measured in undiluted culture supernatants, MCF-7 levels below level of detection (duplicates +/- SD).
Factor XII measured in biological fluids (duplicates +/- SD). Human plasma and serum were tested in the dilution range of 1/100-1/4000; milk, saliva, CSF and urine were diluted 1/1-1/300.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors