

Product datasheet

Human Factor XII ELISA Kit ab108835

[4 Images](#)

Overview

Product name Human Factor XII ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				5%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				7.1%

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.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
40X Biotinylated Human Factor XII Antibody	1 x 150µl
Chromogen Substrate	1 x 8ml
Factor XII Microplate (12 x 8 well strips)	1 unit
Factor XII Standard	2 vials
Sealing Tapes	3 units
Stop Solution	1 x 12ml

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 XIa.

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.

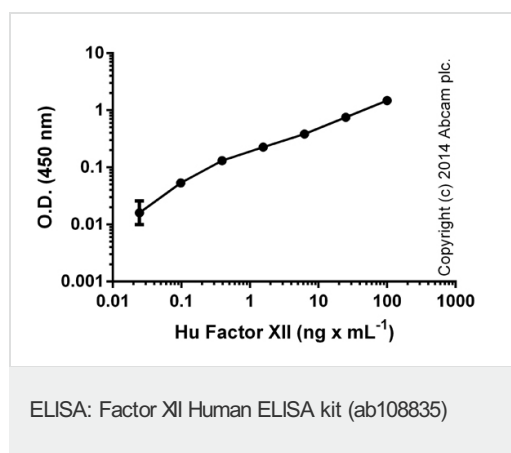
Applications

Our [Abpromise guarantee](#) covers the use of **ab108835** in the following tested applications.

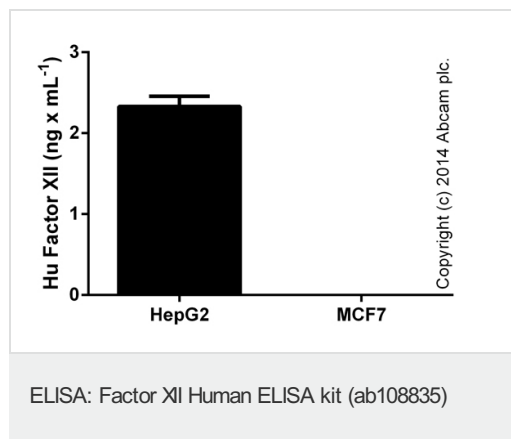
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Sandwich ELISA		Use at an assay dependent dilution.

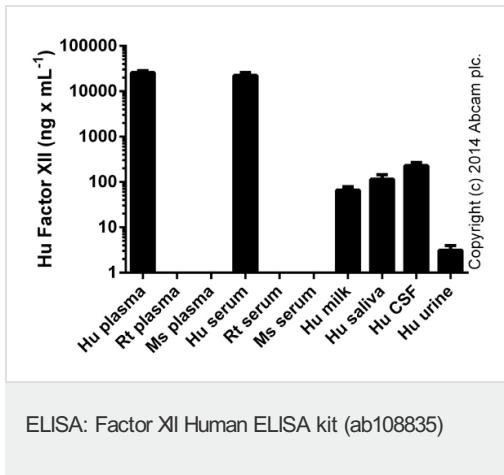
Images



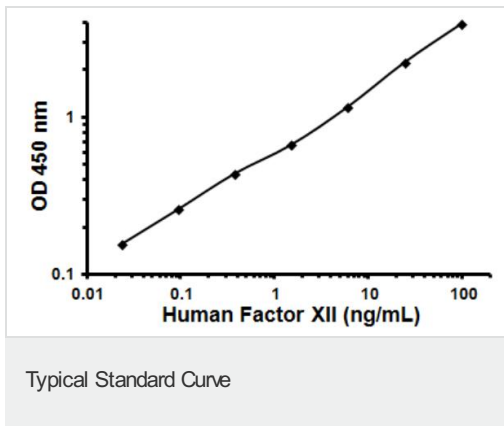
Standard curve with background signal subtracted (duplicates; +/- SD).



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.



Representative Standard Curve using ab108835.

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