# abcam

### Product datasheet

## Human Factor IX ELISA Kit ab108831

4 References 3 Images

Overview

**Precision** 

Product name Human Factor IX ELISA Kit

**Detection method** Colorimetric

Sample	n	Mean	SD	CV%
Overall				5.1%

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Overall				10.2%

Sample type Cell culture supernatant, Serum, Plasma, Cerebral Spinal Fluid

Assay type Sandwich (quantitative)

Sensitivity 0.4 ng/ml

**Range** 1.56 ng/ml - 100 ng/ml

Recovery 99 %
Assay time 4h 00m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Factor IX Human in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the

quantitative measurement of Factor IX concentrations in cell culture supernatants, serum and

plasma.

A Factor IX specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Factor IX 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 IX captured in plate.

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Get higher sensitivity in only 90 minutes with Human Factor IX ELISA Kit (<u>ab188393</u>) from our SimpleStep ELISA<sup>®</sup> range.

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 IX Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
Factor IX Microplate (12 x 8 well strips)	1 unit
Factor IX Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

**Function** Factor IX is a vitamin K-dependent plasma protein that participates in the intrinsic pathway of

blood coagulation by converting factor X to its active form in the presence of Ca(2+) ions,

phospholipids, and factor VIIIa.

Tissue specificity Synthes

Synthesized primarily in the liver and secreted in plasma.

**Involvement in disease** Defects in F9 are the cause of recessive X-linked hemophilia B (HEMB) [MIM:306900]; also

known as Christmas disease.

Note=Mutations in position 43 (Oxford-3, San Dimas) and 46 (Cambridge) prevents cleavage of the propertide, mutation in position 93 (Alabama) probably fails to bind to cell membranes, mutation in position 191 (Chapel-Hill) or in position 226 (Nagoya OR Hilo) prevent cleavage of the

activation peptide.

Defects in F9 are the cause of thrombophilia due to factor IX defect (THR-FIX) [MIM:300807]. A

hemostatic disorder characterized by a tendency to thrombosis.

**Sequence similarities**Belongs to the peptidase S1 family.

Contains 2 EGF-like domains.

Contains 1 Gla (gamma-carboxy-glutamate) domain.

Contains 1 peptidase S1 domain.

**Domain**Calcium binds to the gamma-carboxyglutamic acid (Gla) residues and, with stronger affinity, to

another site, beyond the Gla domain.

Post-translational modifications

Activated by factor XIa, which excises the activation peptide.

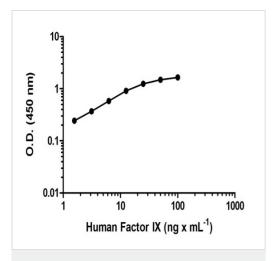
The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R)

stereospecific within EGF domains.

**Cellular localization** 

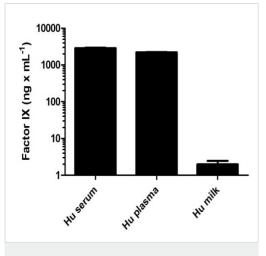
Secreted.

#### **Images**



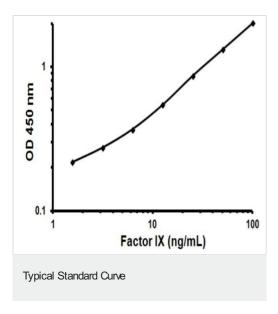
Sandwich ELISA - Factor IX Human ELISA Kit (ab108831)

Human Factor IX standard curve: mean of duplicates (+/- SD)



Sandwich ELISA - Factor IX Human ELISA Kit (ab108831)

Human Factor IX measured in biological fluids showing quantity (ng) per mL of tested sample. Human serum and plasma were diluted 400-3200 fold. Human milk was diluted 1-8 fold.



Representative Standard Curve using ab108831

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