

Human Factor IX/PTC ELISA Kit, Fluorescent ab300325

Recombinant SimpleStep ELISA[®]

[7 Images](#)

Overview

Product name Human Factor IX/PTC ELISA Kit, Fluorescent

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			7.4%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			10.1%

Sample type Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 15.884 pg/ml

Range 97.656 pg/ml - 6250 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	105	92% - 113%
Hep Plasma	112	103% - 118%
EDTA Plasma	106	95% - 115%
Cit plasma	116	111% - 119%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview

Human Factor IX/PTC, Fluorescent SimpleStep ELISA[®] kit is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Factor IX/PTC, Fluorescent protein in human serum and plasma. Quantitate Human Factor IX/PTC, Fluorescent with 15.884 pg/ml sensitivity.

SimpleStep ELISA[®] technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA[®] plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA[®] protocol summary in the image section for further details. Our SimpleStep ELISA[®] technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA[®] microplate ([ab203359](#)) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA[®] kits.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

Store at +4°C. Please refer to protocols.

Components	96 tests
10X Human Factor IX/PTC, Fluorescent Capture Antibody	1 x 600µl
10X Human Factor IX/PTC, Fluorescent Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human Factor IX/PTC, Fluorescent Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

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

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 propeptide, 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.

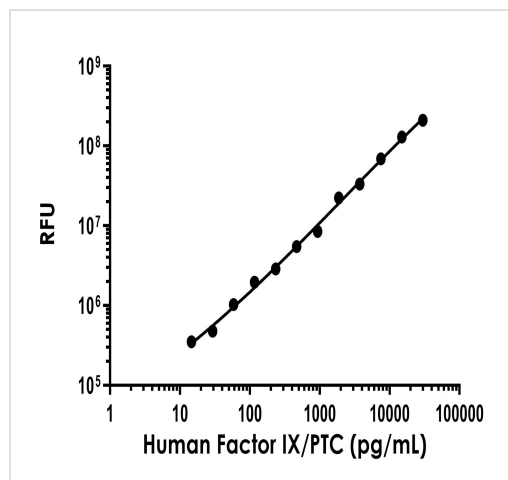
Post-translational modifications

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.

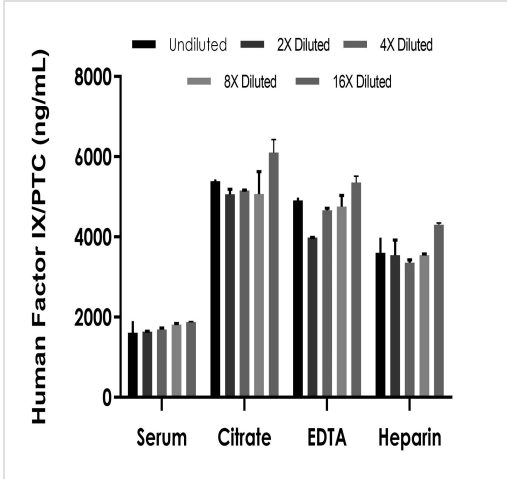
Cellular localization

Secreted.

Images

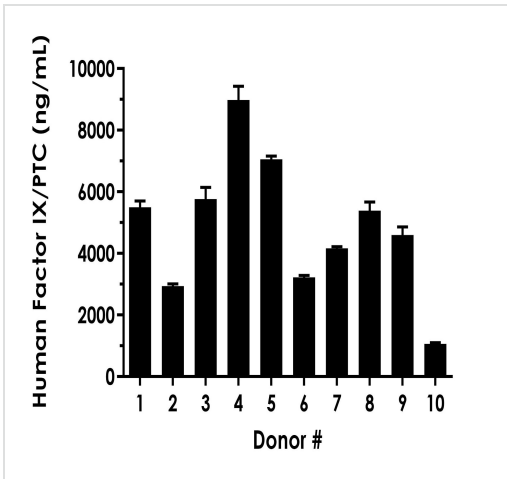
Example of human Factor IX/PTC standard curve. Background-subtracted data values (mean +/- SD) are graphed.

Example of human Factor IX/PTC standard curve in Sample Diluent NS.



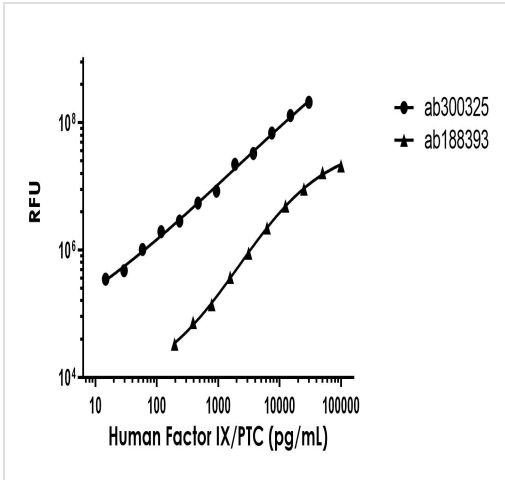
Interpolated concentrations of human Factor IX/PTC in serum, plasma (citrate), plasma (EDTA), and plasma (heparin).

Interpolated concentration of native Factor IX/PTC was measured in duplicate at different sample concentrations. Undiluted samples are as follows: serum 0.15%, plasma (citrate) 0.075%, plasma (EDTA) 0.075%, and plasma (heparin) 0.15%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in Sample Diluent NS.



Interpolated concentrations of Factor IX/PTC in normal human serum donors.

Serum of ten individual healthy human female donors was measured in duplicate. Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Factor IX/PTC concentration was determined to be 4,867.18 ng/mL with a range of 1,062.16 – 8,981.25 ng/mL.



Standard curve comparison between the original Human Factor IX/PTC SimpleStep ELISA (**ab188393**) and current Human Factor IX/PTC SimpleStep ELISA (ab300325).

Human Factor IX/PTC standard curve comparison.



Serum and plasma comparison between the original Human Factor IX/PTC SimpleStep ELISA (**ab188393**) and current Human Factor IX/PTC SimpleStep ELISA (ab300325).

Human Factor IX/PTC serum and plasma comparison.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology

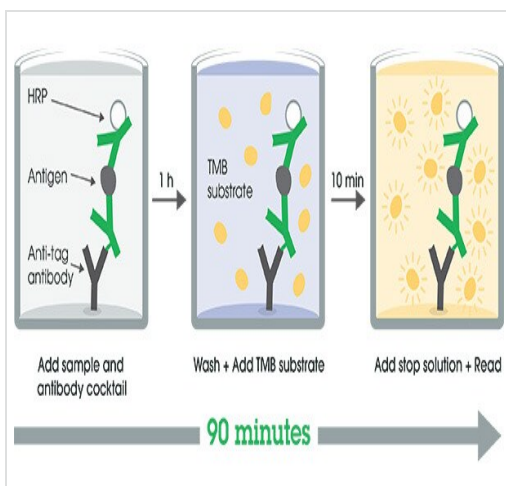


Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Human Factor IX/PTC ELISA Kit, Fluorescent
(ab300325)



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

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