

Product datasheet

Human Factor IX/PTC ELISA Kit ab300307

Recombinant SimpleStep ELISA

★★★★★ [1 Abreviews](#) [10 Images](#)

Overview

Product name Human Factor IX/PTC ELISA Kit

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 SimpleStep ELISA® kit is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Factor IX/PTC protein in human serum and plasma. Quantitate Human Factor IX/PTC 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	10 x 96 tests	96 tests	1 x 384 tests
10X Human Factor IX/PTC Capture Antibody	1 x 6000µl	1 x 600µl	1 x 600µl
10X Human Factor IX/PTC Detector Antibody	1 x 6000µl	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 200ml	1 x 20ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	0 x 0 unit	1 unit
Antibody Diluent 4BI	10 x 6ml	1 x 6ml	1 x 6ml
Human Factor IX/PTC Lyophilized Recombinant Protein	2 x 10 vials	2 vials	2 vials
Plate Seal	1 x 10 units	1 unit	1 unit
Sample Diluent NS (ab193972)	2 x 250ml	1 x 50ml	2 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 x 10 units	1 unit	0 x 0 unit
Stop Solution	1 x 120ml	1 x 12ml	2 x 12ml
TMB Development Solution	1 x 120ml	1 x 12ml	2 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

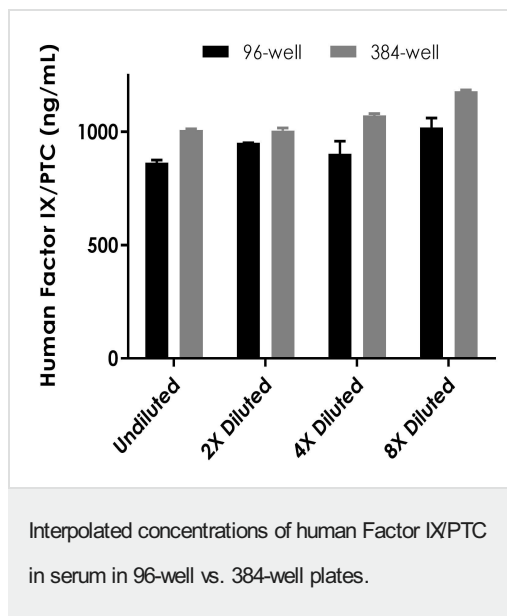
Activated by factor XIa, which excises the activation peptide.

The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.

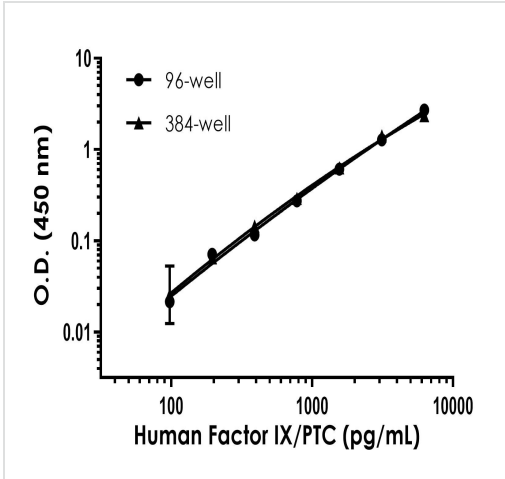
Cellular localization

Secreted.

Images

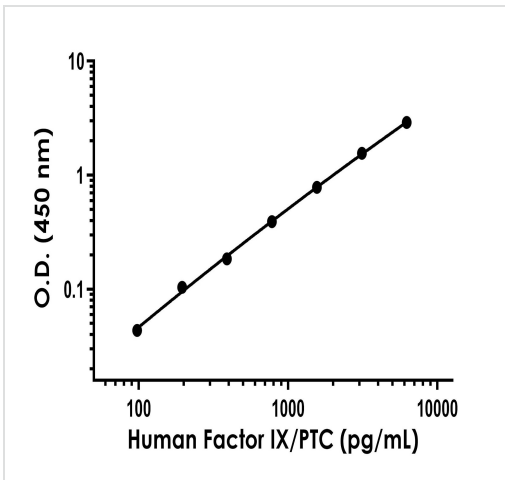


Interpolated concentration of native Factor IX/PTC was measured in duplicate at different sample concentrations in 96-well vs. 384-well plates. Undiluted samples are 1:400 serum. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in Sample Diluent NS.



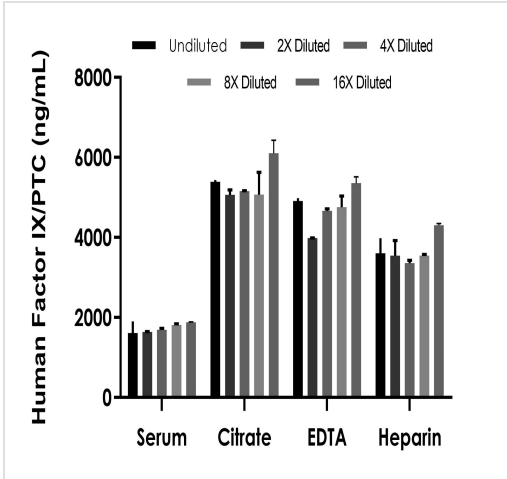
Example of human Factor IX/PTC standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean +/- SD) are graphed.

Example of human Factor IX/PTC standard curve in Sample Diluent NS in 96-well vs. 384-well plate.



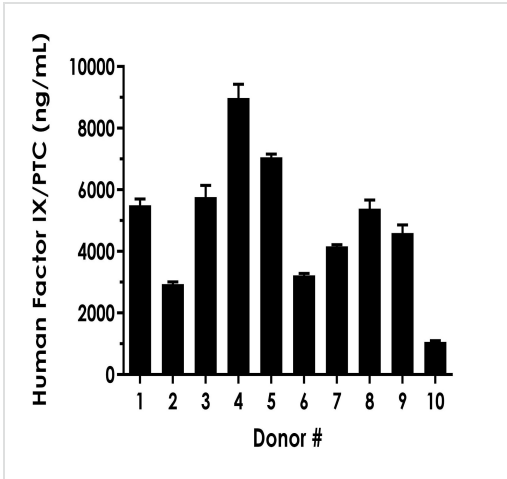
Example of human Factor IX/PTC standard curve. Background-subtracted data values (mean +/- SD) are graphed.

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



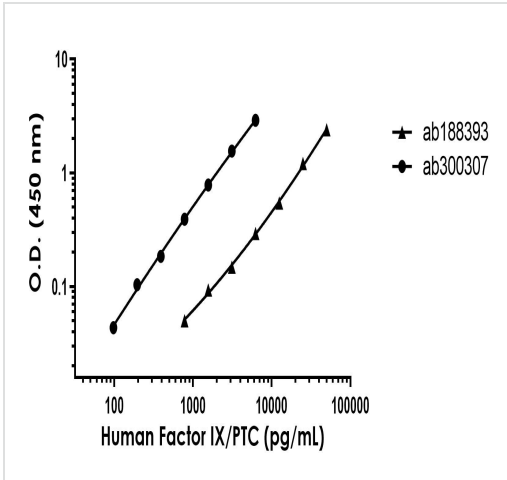
Interpolated concentrations of human Factor IX/PTC in serum, plasma (citrate), plasma (EDTA), and plasma (heparin).

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.



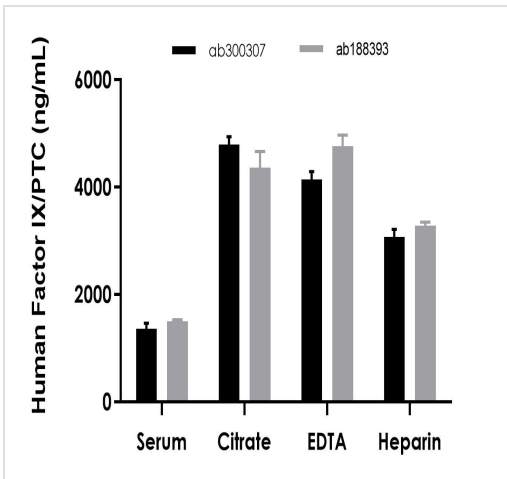
Interpolated concentrations of Factor IX/PTC in normal human serum donors.

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.



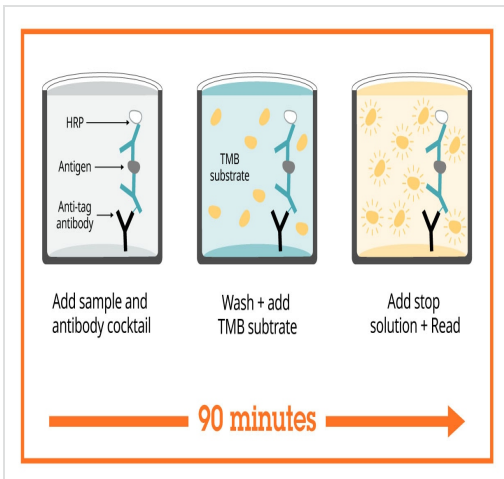
Standard curve comparison between the original Human Factor IX/PTC SimpleStep ELISA (**ab188393**) and current Human Factor IX/PTC SimpleStep ELISA (ab300307).

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 (ab300307).

Human Factor IX/PTC serum and plasma comparison.



Sandwich ELISA - Human Factor IX/PTC ELISA Kit (ab300307)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Human Factor IX/PTC ELISA Kit (ab300307)

Get more done with SimpleStep ELISA



Easy to use
Single-wash 90-minute protocol



Flexible
Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Human Factor IX/PTC ELISA Kit
(ab300307)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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