

Human PCSK9 ELISA Kit ab209884

Recombinant SimpleStep ELISA

[5 References](#) [8 Images](#)

Overview

Product name Human PCSK9 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Human serum	5			4.4%

Inter-assay

Sample	n	Mean	SD	CV%
Human serum	3			4.6%

Sample type

Cell culture supernatant, Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

68 pg/ml

Range

0.5 ng/ml - 32 ng/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	106	103% - 109%
Serum	105	104% - 107%
Cell culture extracts	92	91% - 94%
Hep Plasma	111	107% - 115%
EDTA Plasma	96	93% - 100%
Cit plasma	104	102% - 106%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human Does not react with: Cow, Cynomolgus monkey, Macaque monkey
Product overview	Human PCSK9 ELISA Kit (ab209884) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of PCSK9 protein in cell culture extracts, cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human PCSK9 with 68 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.

Notes

Proprotein convertase subtilisin/kexin type 9 (PCSK9) is a crucial player in the regulation of plasma cholesterol homeostasis. Degradation of low-density lipoprotein receptor family members (LDLR, VLDLR, APOER, and APOER2) is promoted in intracellular acidic compartments following binding by PCSK9.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform Microplate (12 x 8 well strips)

Properties

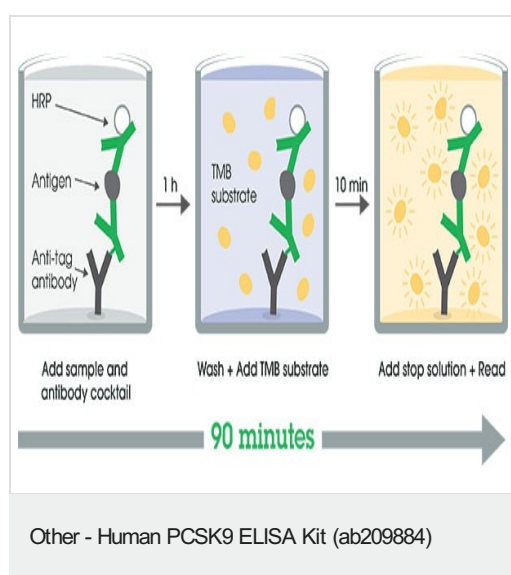
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human PCSK9 Capture Antibody	1 x 600µl
10X Human PCSK9 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1 ml

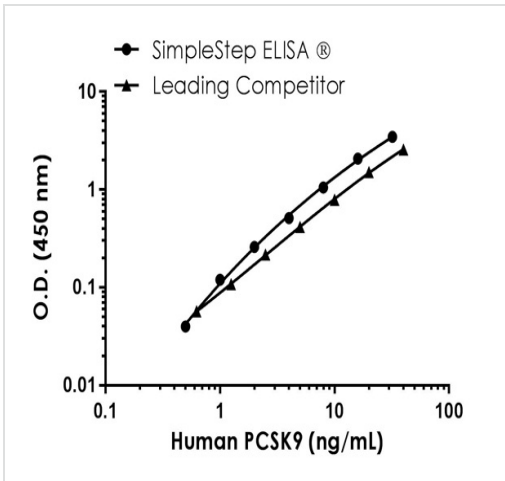
Components	1 x 96 tests
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI2	1 x 6ml
Human PCSK9 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	May be implicated in the differentiation of cortical neurons and may play a role in cholesterol homeostasis.
Tissue specificity	Expressed in neuro-epithelioma, colon carcinoma, hepatic and pancreatic cell lines, and in Schwann cells.
Involvement in disease	Defects in PCSK9 are the cause of familial hypercholesterolemia 3 (FH3) [MIM:603776]. FH3 inheritance is autosomal dominant.
Sequence similarities	Belongs to the peptidase S8 family. Contains 1 peptidase S8 domain.
Post-translational modifications	The soluble zymogen undergoes autocatalytic intramolecular processing in the endoplasmic reticulum, resulting in the cleavage of its propeptide that remains associated with the secreted enzyme.
Cellular localization	Secreted.

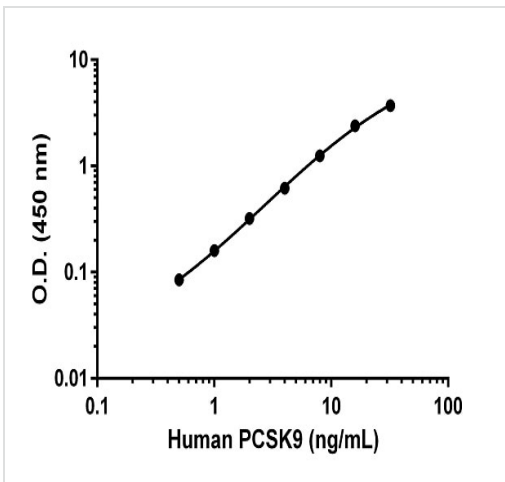
Images



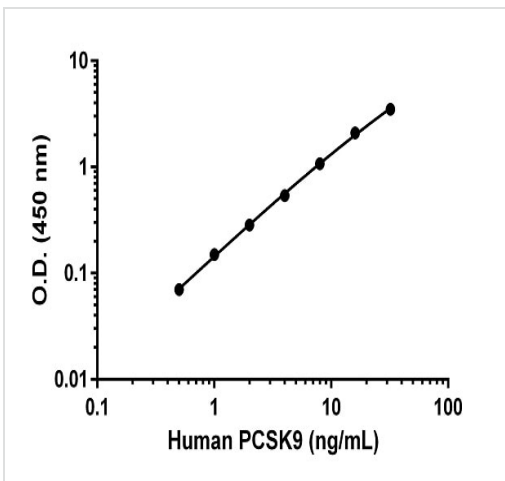
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Human PCSK9 standard curve comparison data.



Example of human PCSK9 standard curve in Sample Diluent NS

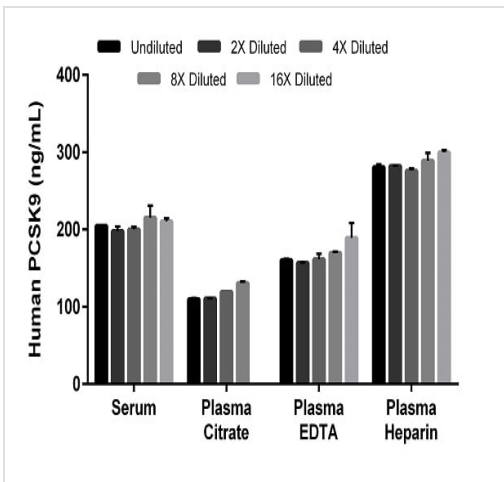


Example of human PCSK9 standard curve in 1X Extraction Buffer PTR

Standard curve comparison between human PCSK9 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows a 2-fold increase in sensitivity.

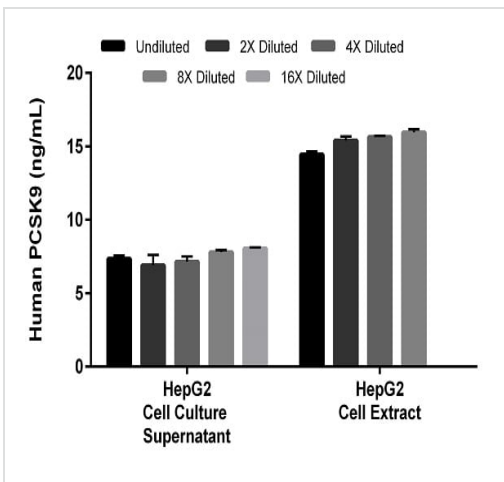
Background-subtracted data values (mean +/- SD) are graphed.

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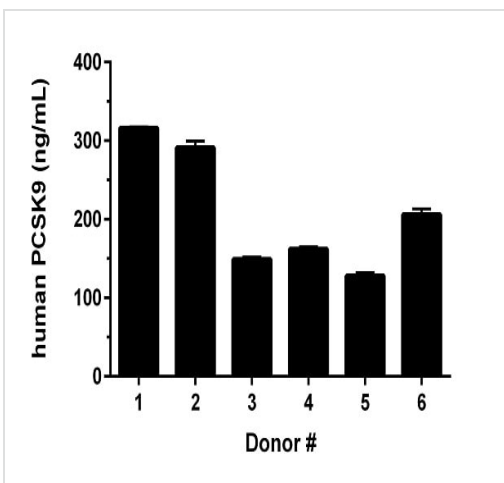
. Interpolated concentrations of native PCSK9 in human serum and plasma samples

The concentrations of PCSK9 were measured in duplicates, interpolated from the PCSK9 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 10%, plasma (citrate) 10%, and plasma (heparin) 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PCSK9 concentration was determined to be 207 ng/mL in serum, 117 ng/mL in plasma (citrate), 166 ng/mL in plasma (EDTA), and 292 ng/mL in plasma (heparin).



Interpolated concentrations of native PCSK9 in HepG2 cell culture supernatant and cell extract

The concentrations of PCSK9 were measured in duplicate, interpolated from the PCSK9 standard curve, and corrected for sample dilution. Undiluted samples are as follows: HepG2 cell culture supernatant 50%, HepG2 cell extract 500 µg/mL. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PCSK9 concentration was determined to be 7.3 ng/mL in HepG2 cell culture supernatant and 15 ng/mL in HepG2 cell extract.



Serum from six individual human male donors was measured in duplicate

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PCSK9 concentration was determined to be 208 ng/mL with a range of 125 - 317 ng/mL.

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recombinant antibodies



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Consistent and reproducible results



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Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human PCSK9 ELISA Kit
(ab209884)

To learn more about the advantages of recombinant antibodies see [here](#).

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