

Product datasheet

Human PCSK9 ELISA Kit, Fluorescent ab229406

CatchPoint[®] SimpleStep[®] ELISA[™]

[5 Images](#)

Overview

Product name Human PCSK9 ELISA Kit, Fluorescent

Detection method Fluorescent

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			4.4%

Inter-assay

Sample	n	Mean	SD	CV%
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

37 pg/ml

Range

0.06 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%

Sample type	Average %	Range
Cit plasma	104	102% - 106%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Human

Does not react with: Cow

Product overview

PCSK9 *in vitro* CatchPoint SimpleStep ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of PCSK9 protein in human serum, plasmas, cell culture supernatant, and cell extracts.

This CatchPoint SimpleStep ELISA kit has been **optimized for Molecular Devices Microplate Readers**. Click [here](#) for a list of recommended Microplate Readers.

If using a Molecular Devices' plate reader supported by SoftMax® Pro software, a preconfigured protocol for these CatchPoint SimpleStep ELISA Kits is available with all the protocol and analysis settings at www.softmaxpro.org.

The CatchPoint SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. CatchPoint HRP Development Solution containing the Stoplight Red Substrate is added. During incubation, the substrate is catalyzed by HRP generating a fluorescent product. Signal is generated proportionally to the amount of bound analyte and the intensity is measured in a fluorescence plate reader at 530/570/590 nm Excitation/Cutoff/Emission.

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.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

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

Components	1 x 96 tests
100X Stoplight Red Substrate	1 x 120µl
10X Human PCSK9 Capture Antibody	1 x 600µl
10X Human PCSK9 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml

Components	1 x 96 tests
500X Hydrogen Peroxide (H ₂ O ₂ , 3%)	1 x 50µl
50X Cell Extraction Enhancer Solution	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI	1 x 6ml
Human PCSK9 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated Black 96-Well Microplate	1 unit
Stoplight Red Substrate Buffer	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.

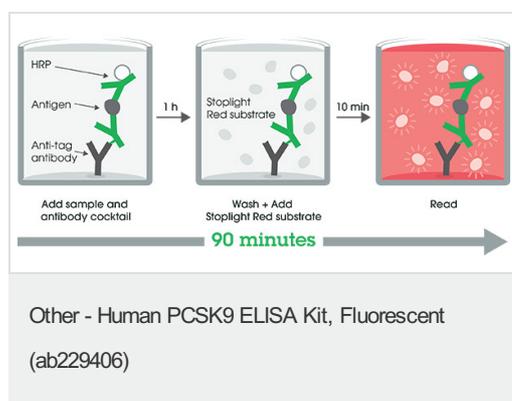
Involvement in disease Defects in PCSK9 are the cause of familial hypercholesterolemia 3 (FH3) [MIM:603776]. FH3 inheritance is autosomal dominant.

Sequence similarities Belongs to the peptidase S8 family. Contains 1 peptidase S8 domain.

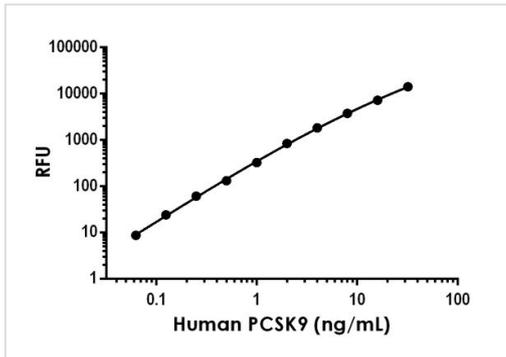
Post-translational modifications The soluble zymogen undergoes autocatalytic intramolecular processing in the endoplasmic reticulum, resulting in the cleavage of its propeptide that remains associated with the secreted enzyme.

Cellular localization Secreted.

Images

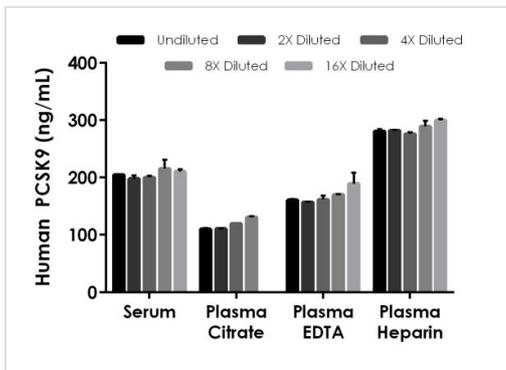


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



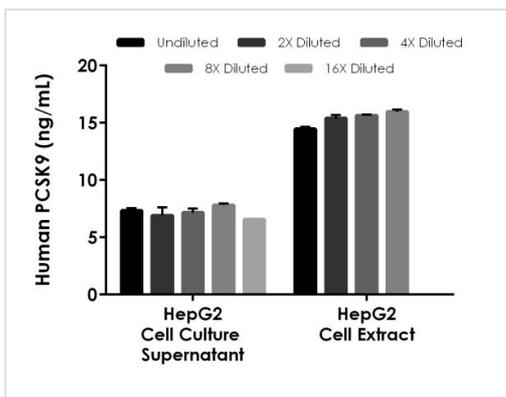
Example of human PCSK9 standard curve in Sample Diluent NS

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



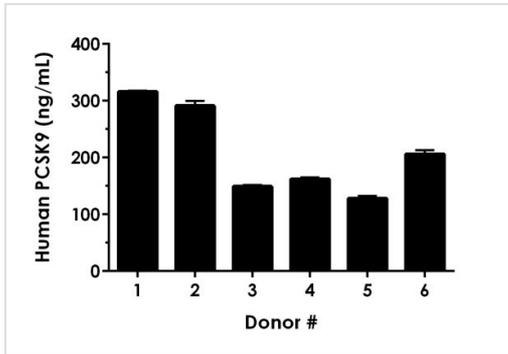
Interpolated concentrations of native PCSK9 in human serum and plasma samples

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.



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

Serum from six individual human male donors was measured in duplicate

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