abcam

Product datasheet

Mouse PCSK9 ELISA Kit ab215538

Recombinant SimpleStep ELISA

6 Images

Overview

Product name Mouse PCSK9 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			2.4%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			8.4%

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

Assay type Sandwich (quantitative)

Sensitivity 2.5 pg/ml

Range 55 pg/ml - 3500 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	98	88% - 105%
Serum	104	102% - 107%
Cell culture extracts	129	128% - 130%
Tissue Extracts	102	99% - 105%
Hep Plasma	109	106% - 114%

Sample type	Average %	Range
EDTA Plasma	101	101% - 102%
Cit plasma	99	95% - 103%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Mouse
Does not react with: Cow

Product overview

Mouse PCSK9 ELISA Kit (ab215538) 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 Mouse PCSK9 with 2.5 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

PCSK9 (proprotein convertase subtilisin kexin 9), also called proprotein convertase 9 or NARC-1 (neural apoptosis-regulated convertase 1), is a member of the proteinase K subfamily of subtilisin-related serine endoproteases. Mouse PCSK9 is encoded by the PCSK9 gene as a 694 amino acid enzyme that includes a signal peptide, a pro-domain, and a catalytic domain. PCSK9 undergoes autocatalytic cleavage in the endoplasmic reticulum to generate a 14 kDa prodomain and a 60 kDa catalytic domain. Active PCSK9 may undergo additional N-terminal proteolysis by furin or proprotein convertase 5/6A, creating an inactive 53 kDa form. PCSK9 is involved in the regulation of plasma cholesterol homeostasis by mediating the degradation of low density lipoprotein receptor.

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

Pre-coated microplate (6 x 8 well strips)

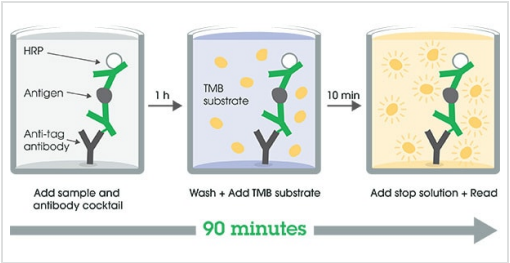
Properties

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

Components	**1 x 96 tests**
10X Mouse PCSK9 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPR	1 x 6ml
Mouse PCSK9 Capture Antibody Lyophilized	1 vial
Mouse 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

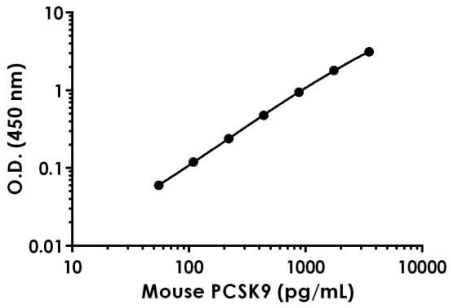
Function	May be implicated in the differentiation of cortical neurons and may play a role in cholesterol homeostasis.
Tissue specificity	Expressed in neuro-epithelioma, colon carcinoma, hepatic and pancreatic cell lines, and in Schwann cells.
Involvement in disease	Defects in PCSK9 are the cause of familial 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



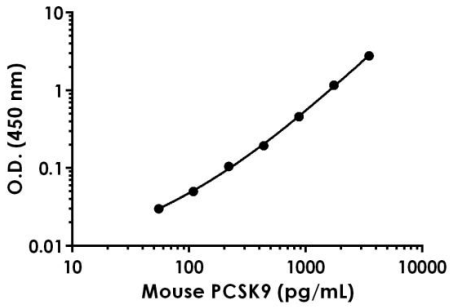
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Other - Mouse PCSK9 ELISA Kit (ab215538)



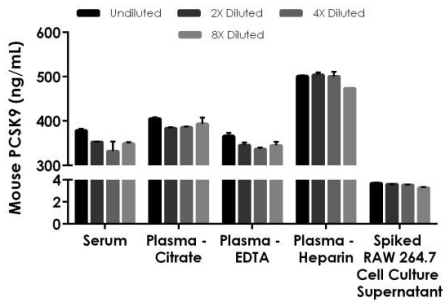
Background-subtracted data values (mean +/- SD) are graphed.

Example of mouse PCSK9 standard curve in Sample Diluent NS.



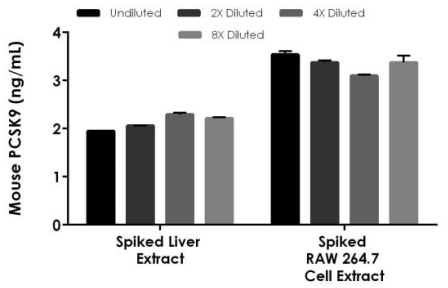
Background-subtracted data values (mean +/- SD) are graphed.

Example of mouse PCSK9 standard curve in 1X Cell Extraction Buffer PTR.



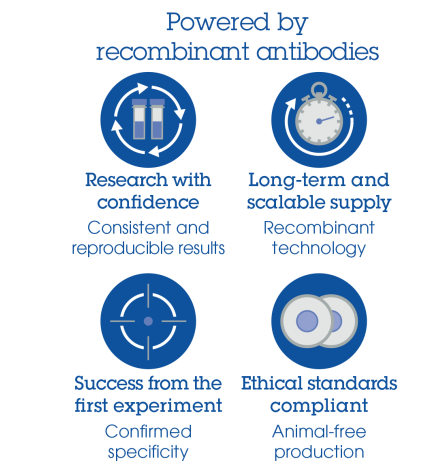
Interpolated concentrations of native PCSK9 in mouse serum and plasmas, and spiked recombinant mouse PCSK9 in cell culture supernatant.

The concentrations of PCSK9 were measured in duplicate, interpolated from the PCSK9 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 0.25%, plasma (citrate) 0.25%, plasma (EDTA) 0.25%, plasma (heparin) 0.13% and RAW 264.7 cell culture supernatant 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PCSK9 concentration was determined to be 353 ng/mL in serum, 396 ng/mL in plasma (citrate), 348 ng/mL in plasma (EDTA), and 495 ng/mL in plasma (heparin). Mouse PCSK9 was not detected in unspiked 50% RAW 264.7 cell culture supernatant.



Interpolated concentrations of spiked recombinant PCSK9 in mouse liver extract and RAW 264.7 cell extract based on a 1,000 µg/mL extract load.

The concentrations of PCSK9 were measured in duplicate, interpolated from the PCSK9 standard curve, and corrected for sample dilution. The interpolated, dilution-factor-corrected values are plotted (mean +/- SD, n=2). The mean native PCSK9 concentration was determined to be 2.36 ng/mg in liver extract and it was undetected in RAW 264.7 cell extract.



Sandwich ELISA - Mouse PCSK9 ELISA Kit (ab215538)

To learn more about the advantages of recombinant antibodies see here.

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