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Datasheet for ABIN1889343

## PCSK9 ELISA Kit

### 1 Image

#### Overview

Quantity:	96 tests
Target:	PCSK9
Binding Specificity:	AA 153-692
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

#### Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human PCSK9
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: S153-Q692
Specificity:	Expression system for standard: NSO Immunogen sequence: S153-Q692
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

## Product Details

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Sensitivity: <10pg/mL

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Material not included: Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

## Target Details

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Target: PCSK9

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Alternative Name: PCSK9 ([PCSK9 Products](#))

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Background: Protein Function: Crucial player in the regulation of plasma cholesterol homeostasis. Binds to low-density lipid receptor family members: low density lipoprotein receptor (LDLR), very low density lipoprotein receptor (VLDLR), apolipoprotein E receptor (LRP1/APOER) and apolipoprotein receptor 2 (LRP8/APOER2), and promotes their degradation in intracellular acidic compartments (PubMed:18039658). Acts via a non-proteolytic mechanism to enhance the degradation of the hepatic LDLR through a clathrin LDLRAP1/ARH-mediated pathway. May prevent the recycling of LDLR from endosomes to the cell surface or direct it to lysosomes for degradation. Can induce ubiquitination of LDLR leading to its subsequent degradation (PubMed:18799458, PubMed:17461796, PubMed:18197702, PubMed:22074827). Inhibits intracellular degradation of APOB via the autophagosome/lysosome pathway in a LDLR-independent manner. Involved in the disposal of non-acetylated intermediates of BACE1 in the early secretory pathway (PubMed:18660751). Inhibits epithelial Na(+) channel (ENaC)-mediated Na(+) absorption by reducing ENaC surface expression primarily by increasing its proteasomal degradation. Regulates neuronal apoptosis via modulation of LRP8/APOER2 levels and related anti-apoptotic signaling pathways. .

Background: Proprotein convertase subtilisin/kexin type 9, also known as PCSK9, is an enzyme that in humans is encoded by the PCSK9 gene. This gene encodes a proprotein convertase belonging to the proteinase K subfamily of the secretory subtilase family. By genomic sequence analysis, the PCSK9 gene was mapped to chromosome 1p32. This protein plays a major regulatory role in cholesterol homeostasis. PCSK9 binds to the epidermal growth factor-like repeat A(EGF-A) domain of the low-density lipoprotein receptor(LDLR), inducing LDLR degradation. Reduced LDLR levels result in decreased metabolism of low-density lipoproteins(LDL), which could lead to hypercholesterolemia. PCSK9 may also have a role in the differentiation of cortical neurons.

Synonyms: Proprotein convertase subtilisin/kexin type 9,3.4.21.-,Neural apoptosis-regulated

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## Target Details

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convertase 1,NARC-1,Proprotein convertase 9,PC9,Subtilisin/kexin-like protease  
PC9,PCSK9,NARC1,PSEC0052,

Full Gene Name: Proprotein convertase subtilisin/kexin type 9

Cellular Localisation: Cytoplasm. Secreted. Endosome. Lysosome. Cell surface. Endoplasmic reticulum. Golgi apparatus. Autocatalytic cleavage is required to transport it from the endoplasmic reticulum to the Golgi apparatus and for the secretion of the mature protein. Localizes to the endoplasmic reticulum in the absence of LDLR and colocalizes to the cell surface and to the endosomes/lysosomes in the presence of LDLR. The sorting to the cell surface and endosomes is required in order to fully promote LDLR degradation.

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Gene ID: 255738

UniProt: [Q8NBP7](#)

## Application Details

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Application Notes: Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Comment: Sequence similarities: Belongs to the peptidase S8 family.  
Tissue Specificity: Expressed in neuro-epithelioma, colon carcinoma, hepatic and pancreatic cell lines, and in Schwann cells.

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Plate: Pre-coated

Protocol: human PCSK9 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for PCSK9 has been precoated onto 96-well plates. Standards(NSO, S153-Q692) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for PCSK9 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human PCSK9 amount of sample captured in plate.

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Assay Procedure: Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human PCSK9 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that

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## Application Details

each human PCSK9 standard solution and each sample be measured in duplicate.

### Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 1425, Standard deviation: 82.65, CV(%): 5.8
- Sample 2: n=16, Mean(pg/ml): 3028, Standard deviation: 193.8, CV(%): 6.4
- Sample 3: n=16, Mean(pg/ml): 5769, Standard deviation: 271.1, CV(%): 4.7,
- Sample 1: n=24, Mean(pg/ml): 1682, Standard deviation: 116.1, CV(%): 6.9
- Sample 2: n=24, Mean(pg/ml): 3181, Standard deviation: 232.2, CV(%): 7.3
- Sample 3: n=24, Mean(pg/ml): 6226, Standard deviation: 342.43, CV(%): 5.5

### Restrictions:

For Research Use only

## Handling

### Handling Advice:

Avoid multiple freeze-thaw cycles.

### Storage:

-20 °C, 4 °C

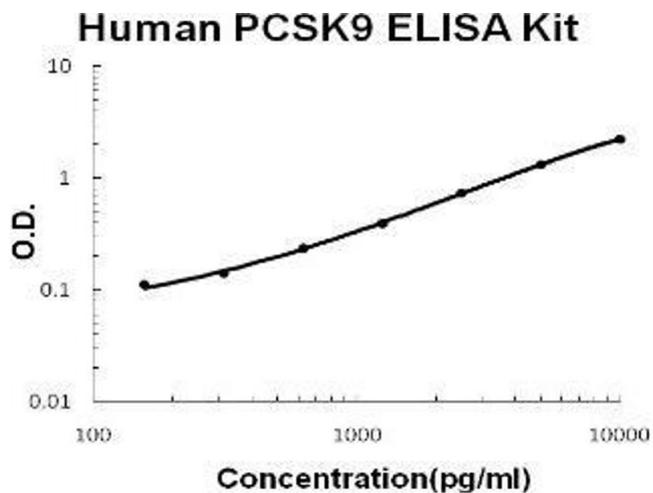
### Storage Comment:

Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

### Expiry Date:

12 months

## Images



### ELISA

**Image 1.** Human PCSK9 PicoKine ELISA Kit standard curve