

ARG82101 Rat PCSK9 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG82101-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG82101-002	Standard	2 X 10 ng/vial	4°C
ARG82101-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG82101-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG82101-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG82101-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG82101-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG82101-008	25X Wash buffer	20 ml	4°C
ARG82101-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG82101-010	STOP solution	10 ml (Ready to use)	4°C
ARG82101-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG82101 Rat PCSK9 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Rat PCSK9 in serum, plasma (heparin, EDTA) and cell culture supernatants.
Tested Reactivity	Rat
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	PCSK9
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	31.25 pg/ml
Sample Type	Serum, plasma (heparin, EDTA) and cell culture supernatants.
Standard Range	62.5 - 4000 pg/ml
Sample Volume	100 µl

Precision	Intra-Assay CV: 5.4%; Inter-Assay CV: 6.9%
Alternate Names	PC9; Subtilisin/kexin-like protease PC9; Proprotein convertase 9; Proprotein convertase subtilisin/kexin type 9; Neural apoptosis-regulated convertase 1; FH3; EC 3.4.21.-; HCHOLA3; NARC1; LDLCQ1; NARC-1

Application Instructions

Assay Time	~ 5 hours
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Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

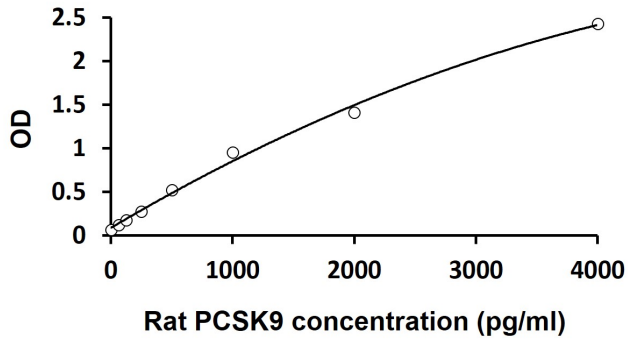
Bioinformation

Gene Symbol	PCSK9
Gene Full Name	proprotein convertase subtilisin/kexin type 9
Background	This gene encodes a member of the subtilisin-like proprotein convertase family, which includes proteases that process protein and peptide precursors trafficking through regulated or constitutive branches of the secretory pathway. The encoded protein undergoes an autocatalytic processing event with its prosegment in the ER and is constitutively secreted as an inactive protease into the extracellular matrix and trans-Golgi network. It is expressed in liver, intestine and kidney tissues and escorts specific receptors for lysosomal degradation. It plays a role in cholesterol and fatty acid metabolism. Mutations in this gene have been associated with autosomal dominant familial hypercholesterolemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]
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. 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. 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. 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. [UniProt]
Highlight	Related products: PCSK9 antibodies ; PCSK9 ELISA Kits ; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	Cleavage by furin and PCSK5 generates a truncated inactive protein that is unable to induce LDLR degradation. Undergoes autocatalytic cleavage in the endoplasmic reticulum to release the propeptide from the N-terminus and the cleavage of the propeptide is strictly required for its maturation and activation. The cleaved propeptide however remains associated with the catalytic domain through non-covalent interactions, preventing potential substrates from accessing its active site. As a result, it is secreted from cells as a propeptide-containing, enzymatically inactive protein. Phosphorylation protects the propeptide against proteolysis. [UniProt]

Cellular Localization

Cytoplasm. Secreted. Endosome. Lysosome. Cell surface. Endoplasmic reticulum. Golgi apparatus.
Note=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. [UniProt]

Images



ARG82101 Rat PCSK9 ELISA Kit standard curve image

ARG82101 Rat PCSK9 ELISA Kit results of a typical standard run with optical density reading at 450 nm.