

PCSK9 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P71189A
Synonyms:	Proprotein Convertase Subtilisin/Kexin Type 9; Neural Apoptosis-Regulated Convertase 1; NARC-1; Proprotein Convertase 9; PC9; Subtilisin/Kexin-Like Protease PC9; Pcsk9; Narc1
Species:	Mouse
Source:	HEK293
Accession:	Q80W65 (Q35-Q155&S156-Q694)
Gene ID:	100102
Molecular Weight:	19.37 & 55 kDa

PROPERTIES

AA Sequence

Q D E D G D Y E E L	M L A L P S Q E D G	L A D E A A H V A T	A T F R R C S K E A
W R L P G T Y I V V	L M E E T Q R L Q I	E Q T A H R L Q T R	A A R R G Y V I K V
L H I F Y D L F P G	F L V K M S S D L L	G L A L K L P H V E	Y I E E D S F V F A
Q S I P W N L E R I	I P A W H Q T E E D	R S P D G S S Q V E	V Y L L D T S I Q G
A H R E I E G R V T	I T D F N S V P E E	D G T R F H R Q A S	K C D S H G T H L A
G V V S G R D A G V	A K G T S L H S L R	V L N C Q G K G T V	S G T L I G L E F I
R K S Q L I Q P S G	P L V V L L P L A G	G Y S R I L N A A C	R H L A R T G V V L
V A A A G N F R D D	A C L Y S P A S A P	E V I T V G A T N A	Q D Q P V T L G T L
G T N F G R C V D L	F A P G K D I I G A	S S D C S T C F M S	Q S G T S Q A A A H
V A G I V A R M L S	R E P T L T L A E L	R Q R L I H F S T K	D V I N M A W F P E
D Q Q V L T P N L V	A T L P P S T H E T	G G Q L L C R T V W	S A H S G P T R T A
T A T A R C A P E E	E L L S C S S F S R	S G R R R G D W I E	A I G G Q Q V C K A
L N A F G G E G V Y	A V A R C C L V P R	A N C S I H N T P A	A R A G L E T H V H
C H Q K D H V L T G	C S F H W E V E D L	S V R R Q P A L R S	R R Q P G Q C V G H
Q A A S V Y A S C C	H A P G L E C K I K	E H G I S G P S E Q	V T V A C E A G W T
L T G C N V L P G A	S L T L G A Y S V D	N L C V A R V H D T	A R A D R T S G E A
T V A A A I C C R S	R P S A K A S W V Q		

Biological Activity The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, pH 7.8.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

The PCSK9 protein plays a pivotal role in the intricate regulation of plasma cholesterol homeostasis. It engages with members of the low-density lipoprotein receptor family, including low-density lipoprotein receptor (LDLR), very low-density lipoprotein receptor (VLDLR), apolipoprotein E receptor (LRP1/APOER), and apolipoprotein receptor 2 (LRP8/APOER2), facilitating their degradation within intracellular acidic compartments. Operating through a non-proteolytic mechanism, PCSK9 enhances the degradation of hepatic LDLR via a clathrin LDLRAP1/ARH-mediated pathway and may impede LDLR recycling from endosomes to the cell surface, directing it to lysosomes for degradation. Moreover, PCSK9 induces ubiquitination of LDLR, leading to subsequent degradation, and inhibits the intracellular degradation of APOB through the autophagosome/lysosome pathway, independent of LDLR. Additionally, PCSK9 is implicated in the disposal of non-acetylated intermediates of BACE1 in the early secretory pathway, hinders epithelial Na⁽⁺⁾ channel (ENaC)-mediated Na⁽⁺⁾ absorption by increasing its proteasomal degradation, and modulates neuronal apoptosis by regulating LRP8/APOER2 levels and related anti-apoptotic signaling pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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