PCSK9 Protein, Mouse (HEK293, His, solution)

Cat. No.:	HY-P71189
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:	17-19 & 60-66 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	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 50 mM HEPES, 150 mM NaCl, 20% Glycerol, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

Shipping	Shipping with dry ice.

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 lipid 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.

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