

## PCSK9 Protein, Human (HEK293, V474I, G670E, His)

<b>Cat. No.:</b>	HY-P70545
<b>Synonyms:</b>	Proprotein Convertase Subtilisin/Kexin Type 9; Neural Apoptosis-Regulated Convertase 1; NARC-1; Proprotein Convertase 9; PC9; Subtilisin/Kexin-Like Protease PC9; PCSK9; NARC1
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q8NBP7 (Q31-Q692, V474I, G670E)
<b>Gene ID:</b>	255738
<b>Molecular Weight:</b>	19&60 kDa

### PROPERTIES

#### AA Sequence

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Q E D E D G D Y E E   L V L A L R S E E D   G L A E A P E H G T   T A T F H R C A K D
P W R L P G T Y V V   V L K E E T H L S Q   S E R T A R R L Q A   Q A A R R G Y L T K
I L H V F H G L L P   G F L V K M S G D L   L E L A L K L P H V   D Y I E E D S S V F
A Q S I P W N L E R   I T P P R Y R A D E   Y Q P P D G G S L V   E V Y L L D T S I Q
S D H R E I E G R V   M V T D F E N 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 A S M R 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 V Q P V   G P L V V L L P L A   G G Y S R V L N A A   C Q R L A R A G V V
L V T 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 E D I I G   A S S D C S T C F V   S Q S G T S Q A A A
H V A G I A A M M L   S A E P E L T L A E   L R Q R L I H F S A   K D V I N E A W F P
E D Q R V L T P N L   V A A L P P S T H G   A G W Q L F C R T V   W S A H S G P T R M
A T A I A R C A P D   E E L L S C S S F S   R S G K R R G E R M   E A Q G G K L V C R
A H N A F G G E G V   Y A I A R C C L L P   Q A N C S V H T A P   P A E A S M G T R V
H C H Q Q G H V L T   G C S S H W E V E D   L G T H K P P V L R   P R G Q P N Q C V G
H R E A S I H A S C   C H A P G L E C K V   K E H G I P A P Q E   Q V T V A C E E G W
T L T G C S A L P G   T S H V L G A Y A V   D N T C V V R S R D   V S T T G S T S E E
A V T A V A I C C R   S R H L A Q A S Q E   L Q
  
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<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20 mM NaH <sub>2</sub> PO <sub>4</sub> , 150mM NaCl, 0.1 M Arginine, 0.1 M Glu, 0.01% Tween20, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A
<b>Storage &amp; Stability</b>	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**

PCSK9 protein emerges as a pivotal regulator in the intricate orchestration of plasma cholesterol homeostasis. Demonstrating its influence on low-density lipoprotein receptor family members, including the low-density lipoprotein receptor (LDLR), very low-density lipoprotein receptor (VLDLR), apolipoprotein E receptor (LRP1/APOER), and apolipoprotein receptor 2 (LRP8/APOER2), PCSK9 facilitates their degradation within intracellular acidic compartments. Employing a non-proteolytic mechanism, it enhances the hepatic LDLR degradation through a clathrin LDLRAP1/ARH-mediated pathway, possibly impeding LDLR recycling and directing it toward lysosomal degradation. Moreover, PCSK9 exhibits LDLR-independent inhibition of APOB intracellular degradation via the autophagosome/lysosome pathway and plays a role in the disposal of non-acetylated BACE1 intermediates in the early secretory pathway. Notably, it regulates epithelial Na<sup>(+)</sup> channel (ENaC)-mediated Na<sup>(+)</sup> absorption by augmenting ENaC proteasomal degradation, and influences neuronal apoptosis through the modulation of LRP8/APOER2 levels and associated anti-apoptotic signaling pathways.

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

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