

## PCSK9 Protein, Human (Biotinylated, V474I, G670E, HEK293, His-HA-Avi)

<b>Cat. No.:</b>	HY-P70546
<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>	18&58-70&90-150 kDa

### PROPERTIES

#### AA Sequence

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	

**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.

**Reconstitution** 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**

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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