

PCSK9 Protein, Human (HEK293, C-His)

Cat. No.:	HY-P70545A
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:	Human
Source:	HEK293
Accession:	Q8NBP7 (Q31-Q692)
Gene ID:	255738
Molecular Weight:	approximately 20.33 & 59 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 V 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	G A V T A V A I C
C R S R H L A Q A	S Q E L Q		

Biological Activity

Measured by its ability to inhibit the proliferation of HT-29 human colon cancer cells. The ED₅₀ for this effect is 6.358 ng/mL, corresponding to a specific activity is 1.573×10⁵ Unit/mg.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

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**

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⁽⁺⁾ channel (ENaC)-mediated Na⁽⁺⁾ 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.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA