

Active Recombinant Human PCSK1, His-tagged

Cat. No. PCSK1-180H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PCSK1 /NEC1 /Prohormone Convertase 1 Protein (rh PCSK1 /NEC1) Lys 28 - Arg 617 (Accession # AAI30296) was produced in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	28-617 a.a.
Description	Prohormone convertase 1 (PCSK1) is also known as Neuroendocrine convertase 1 (NEC1), Proprotein convertase 1 (PC1), which belongs to the peptidase S8 family and Furin subfamily. PCSK1 involved in the processing of hormone and other protein precursors at sites comprised of pairs of basic amino acid residues. PCSK1 / NEC1 release of protein hormones, neuropeptides and renin from their precursors, generally by hydrolysis of -Lys-Arg- - bonds. The catalytic substrates of PCSK1 include POMC, renin, enkephalin, dynorphin, somatostatin and insulin.
Form	Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM NaCl, pH 7.5. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Bio-activity	Measured by its ability to cleave a fluorogenic peptide substrate, acetyl-Arg-Glu-Lys-A rg-7-amino-trifluoromethyl coumarin (Ac-REKR-AFC).
Molecular Mass	rh PCSK1 /NEC1 is fused with a polyhistidine tag at the C-terminus, and has a

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calculated MW of 57 kDa (Mature form). The predicted N-terminus is Ser 111. DTT-reduced Protein migrates as 66 kDa in SDS-PAGE due to glycosylation and autocatalytic processing.

Endotoxin	Less than 1.0 EU per µg of the rh PCSK1 /NEC1 by the LAL method.
Purity	>85% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC); After reconstitution under sterile conditions for 3 months (-70oC).
Reconstitution	See Certificate of Analysis for reconstitution instructions and specific concentrations.

GENE INFORMATION

Gene Name	PCSK1 proprotein convertase subtilisin/kexin type 1 [Homo sapiens]
Official Symbol	PCSK1
Synonyms	PCSK1; proprotein convertase subtilisin/kexin type 1; NEC1; neuroendocrine convertase 1; PC1; PC3; prohormone convertase 1; prohormone convertase 3; proprotein convertase 1; SPC3; NEC 1; BMIQ12;
Gene ID	5122
mRNA Refseq	NM_000439
Protein Refseq	NP_000430
MIM	162150

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UniProt ID	P29120
Chromosome Location	5q15-q21
Pathway	Diabetes pathways, organism-specific biosystem; Disease, organism-specific biosystem; Incretin Synthesis, Secretion, and Inactivation, organism-specific biosystem; Insulin Synthesis and Processing, organism-specific biosystem; Integration of energy metabolism, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of amino acids and derivatives, organism-specific biosystem;
Function	chaperone binding; endopeptidase activity; insulin binding; peptidase activity; serine-type endopeptidase activity; serine-type endopeptidase activity;