

Human PCSK1 / NEC1 Protein (His Tag)

Catalog Number: 10129-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

BMIQ12; NEC1; PC1; PC3; SPC3

Protein Construction:

A DNA sequence encoding the human PCSK1 (NP_000430.3) (Met 1-Arg 617) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ser 111

Molecular Mass:

The purified recombinant human PCSK1 consists of 518 amino acids after removal of the pro peptide due to autocatalytic processing, corresponding to the active form (aa 111-617), and has a predicted molecular mass of 57.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of the active rh PCSK1 is approximately 66 kDa due to glycosylation.

Formulation:

Lyophilized from sterile 25mM Tris, 150mM NaCl, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

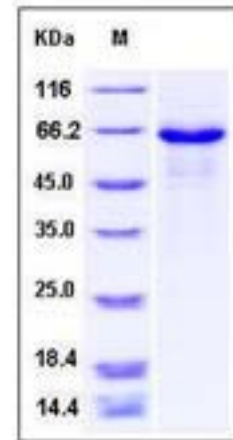
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Neuroendocrine convertase 1, also known as Prohormone convertase 1, Proprotein convertase 1, PCSK1 and NEC1, is an enzyme which belongs to the peptidase S8 family and Furin subfamily. PCSK1 is an enzyme that performs the proteolytic cleavage of prohormones to their intermediate (or sometimes completely cleaved) forms. It is present only in neuroendocrine cells such as brain, pituitary and adrenal, and most often cleaves after a pair of basic residues within prohormones but can occasionally cleave after a single arginine. It binds to a protein known as proSAAS, which also represents its endogenous inhibitor. PCSK1 is involved in the processing of hormone and other protein precursors at sites comprised of pairs of basic amino acid residues. PCSK1 substrates include POMC, renin, enkephalin, dynorphin, somatostatin and insulin. Defects in PCSK1 are the cause of proprotein convertase 1 deficiency (PC1 deficiency). PC1 deficiency is characterized by obesity, hypogonadism, hypoadrenalism, reactive hypoglycemia as well as marked small-intestinal absorptive dysfunction. It is due to impaired processing of prohormones.

References

1. Jackson RS. et al., 2003, J. Clin. Invest. 112:1550-60. 2. Farooqi I.S. et al., 2007, J. Clin. Endocrinol. Metab. 92: 3369-73. 3. Benzinou, M. et al., 2008, Nat Genet. 40 (8):943-5.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>