

## Recombinant Human PCSK1/NEC1 Protein (His Tag)

**Catalog Number:** PKSH031846

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

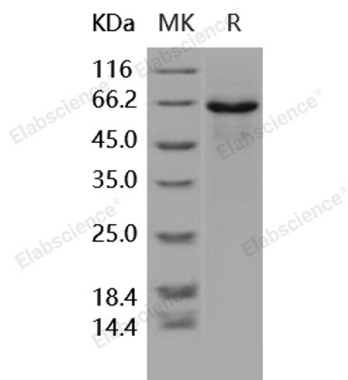
### Description

|                      |   |
|----------------------|---|
| <b>Species</b>       | Human   |
| <b>Source</b>        | HEK293 Cells-derived Human PCSK1/NEC1 protein Met 1-Arg 617, with an C-terminal His |
| <b>Calculated MW</b> | 57.4 kDa  |
| <b>Observed MW</b>   | 66 kDa  |
| <b>Accession</b>     | NP_000430.3   |
| <b>Bio-activity</b>  | Not validated for activity  |

### Properties

|                       |   |
|-----------------------|---|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.  |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.   |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.       |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.   |
| <b>Formulation</b>    | Lyophilized from sterile 25mM Tris, 150mM NaCl, pH 7.5<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.  |

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

Toll-free: 1-888-852-8623  
Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017

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.

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