Recombinant Protein Technical Manual

Recombinant Human PCSK1/NEC1 Protein (His Tag)

RPES1635

Product Data:

Product SKU: RPES1635

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_000430.3

Protein Information:

Molecular Mass: 57.4 kDa

AP Molecular Mass: 66 kDa

Tag: C-His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: BMIQ12;NEC1;PC1;PC3;SPC3

Immunogen Information:

Sequence: Met 1-Arg 617

Background:

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.