

## Recombinant Human Carboxypeptidase E/CPE Protein (Fc Tag)

Catalog No. PKSH031897

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

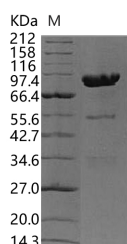
### Description

<b>Synonyms</b>	Carboxypeptidase E(CPE for short);Carboxypeptidase H;Enkephalin convertase;Prohormone-processing carboxypeptidase
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Ser 453
<b>Accession</b>	NP_001864.1
<b>Calculated Molecular Weight</b>	74.6 kDa
<b>Observed molecular weight</b>	85-90 kDa
<b>Tag</b>	C-hFc
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 85 % 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 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 85 % as determined by reducing SDS-PAGE.

### Background

Carboxypeptidase E (CPE), also known as Carboxypeptidase H, is a peripheral membrane protein and a zinc

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metallocarboxypeptidase, and the conversion of proCPE into CPE occurs primarily in secretory vesicles. The active form of CPE cleaves C-terminal amino acid residues of the peptide, and is thus involved in the biosynthesis of peptide hormones and neurotransmitters including insulin, enkephalin, etc. The enzymatic activity is enhanced by millimolar concentrations of  $\text{Co}^{2+}$ . It has also been proposed that membrane-associated carboxypeptidase E acts as a sorting receptor for targeting regulated secretory proteins which are mostly prohormones and neuropeptides in the trans-Golgi network of the pituitary and in secretory granules into the secretory pathway. Its interaction with glycosphingolipid-cholesterol rafts at the TGN facilitates the targeting. Mutations in this gene are implicated in type II diabetes due to impaired glucose clearance and insulin resistance.