

## Recombinant Human CPE, His-tagged, C13&N15 Labeled

Cat. No. CPE-199H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human CPE MS Standard Protein, C13 and N15-labeled (CPE, Heavy Labeled) Glu 26 - Ser 453 (Accession # NP\_001864.1) was produced in human 293 cells (HEK293) with fully chemically defined cell culture medium to obtain >99% incorporation efficiency

**Species** Human

**Source** HEK293

**ProteinLength** 26-453 a.a.

**Description** Carboxypeptidase E (CPE) is also known as Carboxypeptidase H or enkephalin convertase. Carboxypeptidase E cleaves C-terminal amino acid residues and is involved in neuropeptide processing. It is a peripheral membrane protein. CPE specifically binds regulated secretory pathway proteins, including prohormones, but not constitutively secreted proteins. Carboxypeptidase E appears to have several functions. The active form of carboxypeptidase E was shown to be in secretory vesicles, where it acts as an exopeptidase to activate neuropeptides, It does that by cleaving off basic C-terminal amino acids, producing the active form of the peptide. Products of carboxypeptidase E include insulin, enkephalin, and most other neuroendocrine peptides. It has also been proposed that membrane-associated carboxypeptidase E acts as a sorting signal for regulated secretory proteins in the trans-Golgi network of the pituitary and in secretory granules; regulated secretory proteins are mostly hormones and neuropeptides. Mice with mutant carboxypeptidase

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	E Cpe, display endocrine disorders like obesity and infertility.
<b>Predicted N Terminal</b>	Glu 26
<b>Form</b>	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
<b>Molecular Mass</b>	CPE, Heavy Labeled is fused with polyhistidine tag at the C-terminus, and has a calculated MW of 49 kDa. The predicted N-terminus is Glu 26. DTT-reduced Protein migrates as 53 kDa in SDS-PAGE. CPE, Heavy Labeled is labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine
<b>Endotoxin</b>	Less than 1.0 EU per µg of the CPE, Heavy Labeled by the LAL method.
<b>Purity</b>	>95% as determined by SDS-PAGE.
<b>Applications</b>	MS Standard Protein
<b>Storage</b>	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).

## GENE INFORMATION

<b>Gene Name</b>	CPE carboxypeptidase E [ Homo sapiens ]
<b>Official Symbol</b>	CPE
<b>Synonyms</b>	CPE; carboxypeptidase E; carboxypeptidase H; cobalt stimulated chromaffin granule carboxypeptidase; enkephalin convertase; insulin granule associated carboxypeptidase; CPH; prohormone-processing carboxypeptidase; insulin granule-

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

associated carboxypeptidase; cobalt-stimulated chromaffin granule carboxypeptidase;

**Gene ID** [1363](#)

**mRNA Refseq** [NM\\_001873](#)

**Protein Refseq** [NP\\_001864](#)

**MIM** [114855](#)

**UniProt ID** [P16870](#)

**Chromosome  
Location** 4q32.3

**Pathway** Arf6 trafficking events, organism-specific biosystem; Diabetes pathways, organism-specific biosystem; Disease, organism-specific biosystem; Insulin Synthesis and Processing, organism-specific biosystem; Type I diabetes mellitus, organism-specific biosystem; Type I diabetes mellitus, conserved biosystem;

**Function** carboxypeptidase activity; cell adhesion molecule binding; metal ion binding; metalloproteinase activity; metalloproteinase activity; neurexin family protein binding; peptidase activity; zinc ion binding;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA