

## Recombinant Mouse Cpe, His-tagged

**Cat. No.** Cpe-214M    **Lot. No.** (See product label)

### SPECIFICATION

**Product Overview**      Recombinant Mouse CPE MS Standard Protein, C13 and N15-labeled (Mouse CPE, Heavy Labeled) Gln 28 - Phe 476 (Accession # NP\_038522) was produced in human 293 cells (HEK293) with fully chemically defined cell culture medium to obtain >99% incorporation effi

**Species**                      Mouse

**Source**                        HEK293

**ProteinLength**              28-476 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

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|                       |   |
|-----------------------|---|
|                       | E Cpe, display endocrine disorders like obesity and infertility.  |
| <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> | Mouse CPE, Heavy Labeled is fused with polyhistidine tag at the C-terminus, and has a calculated MW of 52 kDa. The predicted N-terminus is Gln 28. DTT-reduced Protein migrates as 52 kDa in SDS-PAGE .Mouse CPE, Heavy Labeled is labeled with [U-13C6, 15N4 |
| <b>Endotoxin</b>      | Less than 1.0 EU per µg of the Mouse CPE, Heavy Labeled by the LAL method.  |
| <b>Purity</b>         | >95% as determined by SDS-PAGE.   |
| <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).   |
| <b>Reconstitution</b> | See Certificate of Analysis for reconstitution instructions and specific concentrations.  |

## GENE INFORMATION

|                        |   |
|------------------------|---|
| <b>Gene Name</b>       | <a href="#">Cpe carboxypeptidase E [ Mus musculus ]</a>   |
| <b>Official Symbol</b> | Cpe   |
| <b>Synonyms</b>        | CPE; carboxypeptidase E; carboxypeptidase H; enkephalin convertase; prohormone-processing carboxypeptidase; CPH; fat; Cph1; Cph-1; R74677; MGC7101; |
| <b>Gene ID</b>         | <a href="#">12876</a>   |

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**mRNA Refseq** [NM\\_013494](#)


**Protein Refseq** [NP\\_038522](#)

**Pathway**

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; cobalt ion binding; hydrolase activity; metal ion binding; metallocarboxypeptidase activity; metallopeptidase activity; neurexin family protein binding; peptidase activity; zinc ion binding;

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