Recombinant Mouse Cpe, C13&N15-labeled

Cat. No. Cpe-225M **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).
Species	Mouse
Source	HEK293
ProteinLength	28-476 a.a.
Description	Carboxypeptidase E (CPE), 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 E Cpe, display endocrine disorders like obesity and infertility.[1-3]

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Form	Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Molecular Mass	Mouse CPE, Heavy Labeled, fused with 6×His tag at the C-terminus, has a calculated MW of 52 kDa. The predicted N-terminus is Gln 28. DTT-reduced Protein migrates as 52 kDa.
Endotoxin	Less than 1.0 EU per μg of the Mouse CPE, Heavy Labeled by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC-8oC); After reconstitution under sterile conditions for 1 month (4oC-8oC) or 3 months (-20oC to -70oC).

GENE INFORMATION

Gene Name	Cpe carboxypeptidase E [Mus musculus]
Official Symbol	Cpe
Synonyms	CPE; carboxypeptidase E; carboxypeptidase H; enkephalin convertase; prohormone-processing carboxypeptidase; CPH; fat; Cph1; Cph-1; R74677; MGC7101;
Gene ID	12876
mRNA Refseq	NM_013494
Protein Refseq	NP_038522
Pathway	Diabetes pathways, organism-specific biosystem; Disease, organism-specific

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	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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