

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 6xHis 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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