Recombinant CBPE protein (His tag)

Catalog Number	537567
Synonyms	CPE; Carboxypeptidase H; CPH; Enkephalin convertase; Prohormone-processing carboxypeptidase
Species	Human
Expression System	E. coli
Accession	P16870
Molecular Weight	Predictes a molecular mass of 50.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 54 kDa band.

Product Information

Sequence Region	48-476
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 48-476 aa (P16870) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Carboxypeptidase E (CPE) Fragment (residues 48-476) is a high-purity protein designed for studying the enzymatic and sorting functions of CPE. This fragment fully encompasses the Peptidase M14 domain, making it an ideal tool for investigating prohormone processing and regulated secretory pathway mechanisms in neuroendocrine research. Carboxypeptidase E (CPE), also known as Carboxypeptidase H or Enkephalin convertase, serves dual roles as both a sorting receptor directing prohormones to the regulated secretory pathway and a prohormone-processing enzyme. It specifically removes dibasic residues from the C-terminal end of peptide hormone precursors following initial endoprotease cleavage in neuroendocrine cells. The protein is localized to cytoplasmic and secretory vesicles, where it associates with secretory granule membranes through lipid raft binding. This strategic localization supports its critical function in hormone maturation and secretion, underscoring its importance in endocrine and neurological research.