

Carboxypeptidase E/CPE Protein, Human (HEK293 His)

Cat. No.:	HY-P7736
Synonyms:	rHuCarboxypeptidase E, His; Carboxypeptidase H; Enkephalin convertase; Prohormone-processing carboxypeptidase
Species:	Human
Source:	HEK293
Accession:	P16870 (R42-S453)
Gene ID:	1363
Molecular Weight:	Approximately 57.0 kDa

PROPERTIES

AA Sequence	<pre> RLQQEDGISF EYHRYPELRE ALVSVWLQCT AISRIYTVGR SFEGRELLVI ELSDNPGVHE PGEPEFKYIG NMHGNEAVGR ELLIFLAQYL CNEYQKGNET IVNLIHSTRI HIMP SLNPDG FEKAASQPGE LKDWVVGSRN AQGIDLNRNF PDLDRIVYVN EKEGGPNNHL LKNMKKIVDQ NTKLAPETKA VIHWMIDIPF VLSANLHGDD LVANYPYDET RSGSAHEYSS SPDDAIFQSL ARAYSSFNPA MSDPNRPPCR KNDDSSSFVD GTTNGGAWYS VPGGMQDFNY LSSNCFEITV ELSCEKFPPE ETLKTYWEDN KNSLISYLEQ IHRGVKGFVR DLQGNPIANA TISVEGIDHD VTSAKDGDYW RLLIPGNYKL TASAPGYLAI TKKVAVPYSP AAGVDFELES FSHHHHHH </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filter solution of 20 mM Tris-HCl, 150 mM NaCl, 1 mM ZnCl ₂ , 10% Glycerol, pH 7.5.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

Carboxypeptidase E (CPE), which cleaves C-terminal amino acid residues and is involved in neuropeptide processing, is itself subject to intracellular processing. Carboxypeptidase E (CPE) is an enkephalin-convertase that cleaved a C-terminal basic residue from enkephalin precursors to generate enkephalin^[1].

CPE is a glycoprotein, which is synthesized as a larger inactive precursor. It is exclusively synthesized by membrane-bound polyribosomes in the brain^{[1][2]}.

There exists two forms of CPE, soluble and membrane-bound in most tissues with CPE activity. These two forms differ slightly in molecular weight, but have identical enzymatic properties. Both forms arise from the same precursor, which is encoded by a single gene. This gene is a member of a carboxypeptidase gene family that includes CPA and CPB^[2].

REFERENCES

[1]. E Manser, et al. Human carboxypeptidase E. Isolation and characterization of the cDNA, sequence conservation, expression and processing in vitro. *Biochem J.* 1990 Apr 15;267(2):517-25.

[2]. Lloyd D Fricker, et al. Carboxypeptidase E and the Identification of Novel Neuropeptides as Potential Therapeutic Targets. *Adv Pharmacol*

Caution: Product has not been fully validated for medical applications. For research use only.

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