Recombinant Protein Technical Manual

Recombinant Human Carboxypeptidase E/CPE Protein (His Tag)(Active)

RPES2369

Product Data:

Product SKU: RPES2369

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001864.1

Protein Information:

Molecular Mass:	49.4 kDa
AP Molecular Mass:	53 kDa
Tag:	C-His
Bio-activity:	Measured by its ability to cleave a peptide substrate, benzoyl-AR-OH. The product, Arg, reacted with orthophthaldialdehyde (OPA) to form a fluorescent molecule. The specific activity is >12,000 pmoles/min/µg.
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile PBS, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	Carboxypeptidase E(CPE for short); Carboxypeptidase H; Enkephalin convertase; Prohormone-processing carboxypeptidase

Immunogen Information:

Sequence: Met 1-Ser 453

Background:

Carboxypeptidase E (CPE), also known as Carboxypeptidase H, is a peripheral membrane protein and a zinc metallocarboxypeptidase, and the conversion of proCPE into CPE occurs primarily in secretory vesicles. The active form of CPE cleaves C-terminal amino acid residues of the peptide, and is thus involved in the biosynthesis of peptide hormones and neurotransmitters including insulin, enkephalin, etc. The enzymatic activity is enhanced by millimolar concentrations of Co2+. It has also been proposed that membrane-associated carboxypeptidase E acts as a sorting receptor for targeting regulated secretory proteins which are mostly prohormones and neuropeptides in the trans-Golgi network of the pituitary and in secretory granules into the secretory pathway. Its interaction with glycosphingolipid-cholesterol rafts at the TGN facilitates the targeting. Mutations in this gene are implicated in type I I diabetes due to impaired glucose clearance and insulin resistance.