

Recombinant Human Carboxypeptidase B1/CPB1 Protein (His Tag)

Catalog Number: PKSH031567

Note: Centrifuge before opening to ensure complete recovery of vial contents.

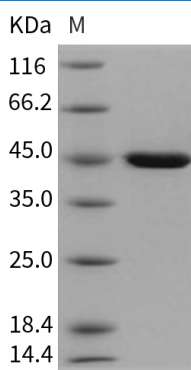
Description

Species	Human
Source	HEK293 Cells-derived Human Carboxypeptidase B1/CPB1 protein Met 1-Tyr 417, with an C-terminal His
Calculated MW	47.0 kDa
Observed MW	45 kDa
Accession	NP_001862.2
Bio-activity	Measured by its ability to cleave a colorimetric peptide substrate, Hippuryl-Arg, as measured using the wavelength at 254 nm. The specific activity is > 10000 pmoles/min/μg.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, 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°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 25mM MES, 0.1 M NaCl, pH 6.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

Background

Carboxypeptidase B1, also well known as pancreatic procarboxypeptidase B (PCPB), is a highly pancreas-specific protein (PASP), and has been identified previously as a serum marker for acute pancreatitis and pancreatic graft rejection. As the prototype for those human exopeptidases that cleave off basic C-terminal residues, CPB1 specifically cleaves the C-terminal Arg and Lys residues with a preference for Arg. The B1 and B2 forms of procarboxypeptidase B differ from each other mainly in isoelectric point. The deduced amino acid sequence of PCPB predicts a 416-amino acid preproenzyme consisting of a 15-aa signal peptide, a 95-aa activation peptide and a 307-aa mature chain. The secreted PCPB zymogen is converted to enzymatically active CPB1 by limited proteolysis by trypsin.

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