

Human Carboxypeptidase B1 / CPB1 Protein (His Tag)

Catalog Number: 10501-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CPB; PASP; PCPB

Protein Construction:

A DNA sequence encoding the human CPB1 (NP_001862.2) (Met 1-Tyr 417) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

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.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His 16

Molecular Mass:

The recombinant human CPB1 consists of 413 amino acids and has a predicted molecular mass of 47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Formulation:

Lyophilized from sterile 25mM MES, 0.1 M NaCl, pH 6.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

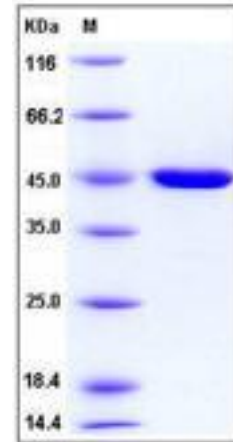
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.Yamamoto, K.K. et al., 1992, J. Biol. Chem. 267: 2575-2581. 2.Pezzilli, R. et al., 1994, Digestion. 55: 73-77. 3.Barbosa Pereira, P.J. et al., 2002, J. Mol. Biol. 321: 537-547.

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