

Human Carboxypeptidase A1 / CPA1 Protein (His Tag)

Catalog Number: 10504-H08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CPA; 0910001L12Rik; Cpa

Protein Construction:

A DNA sequence encoding the human CPA1 precursor (NP_001859.1) (Met 1-Tyr 419) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to cleave the colorimetric peptide substrate **Ac-Phe-Thiaphe-OH** in the presence of **5,5'Dithiobis (2-nitrobenzoic acid) (DTNB)**. The specific activity is **>3,500 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: Lys 17

Molecular Mass:

The secreted recombinant human CPA1 (pro form) consists of 414 amino acids and has a predicted molecular mass of 47 kDa. In SDS-PAGE under reducing conditions, it migrates with the apparent molecular mass of 43 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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:

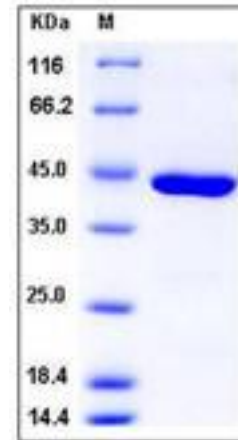
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Human Carboxypeptidase A1 (CPA1) is secreted as a pancreatic procarboxypeptidase, and cleaves the C-terminal amide or ester bond of peptides that have a free C-terminal carboxyl group, with the preference of residues with aromatic or branched aliphatic side chains. CPA1 comprises a signal peptide, a pro region and a mature chain, and can be activated after cleavage of the pro peptide. In contrast to procarboxypeptidase B which was always secreted by the pancreas as a monomer, procarboxypeptidase A occurs as a monomer and/or associated to one or two functionally different proteins, such as zymogen E, and is involved in zymogen inhibition. Three different forms of human pancreatic procarboxypeptidase A have been isolated.

References

1. Catasus, L. et al., 1992, Biochem. J. 287: 299-303.
2. Moulard, M. et al., 1990, FEBS. Lett. 261: 179-183.
3. Aloy, P. et al., 1998, Biol. Chem. 379: 149-155.

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