Mouse Carboxypeptidase A1 / CPA1 Protein (His Tag)

Catalog Number: **50448-M08H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CPA; 0910001L12Rik; Cpa

Protein Construction:

A DNA sequence encoding the mouse CPA1 (NP_079626.2) (Met 1-Tyr 419) precusor was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 96 % 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 >6,000 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 ℃

Predicted N terminal: Asn 17

Molecular Mass:

The secreted recombinant pro form of mouse CPA1 comprises 414 amino acids and has a calculated molecular mass of 47 kDa. The recombinant protein migrates as an approximately 42 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 150mM NaCl, pH 7.5

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:

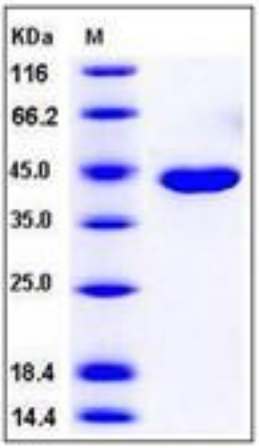
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.