Human CLPS / Colipase Protein (His Tag)

Catalog Number: **13631-H08B**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CLPS

Protein Construction:

A DNA sequence encoding the human CLPS (P04118) (Met 1-Gln 112) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

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: Ala 18

Molecular Mass:

The recombinant human CLPS consists of 105 amino acids and predicts a molecular mass of 11.5 kDa. It migrates as an approximately 12 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, 500mM NaCl, pH 7.0, 10% gly

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:

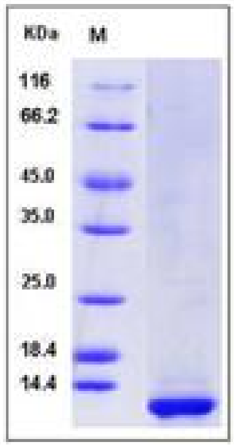
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Colipase belongs to the colipase family. Structural studies of the complex and of colipase alone have revealed the functionality of its architecture. It is a small protein with five conserved disulphide bonds. Structural analogies have been recognised between a developmental protein, the pancreatic lipase C-terminal domain, the N-terminal domains of lipoxygenases and the C-terminal domain of alpha-toxin. Colipase can only be detected in pancreatic acinar cells, suggesting regulation of expression by tissue-specific elements. Colipase allows lipase to anchor noncovalently to the surface of lipid micelles, counteracting the destabilizing influence of intestinal bile salts. Without colipase the enzyme is washed off by bile salts, which have an inhibitory effect on the lipase. Colipase is a cofactor needed by pancreatic lipase for efficient dietary lipid hydrolysis. It binds to the C-terminal, non-catalytic domain of lipase, thereby stabilising as active conformation and considerably increasing the overall hydrophobic binding site.

References

1.Davis RC, et al. (1991) Assignment of the human pancreatic colipase gene to chromosome 6p21.1 to pter. Genomics. 10(1):262-5.
2.Lowe ME. (1997) Structure and function of pancreatic lipase and colipase. Annu Rev Nutr. 17: 141-58.
3.Verger R, et al. (1999) Colipase: structure and interaction with pancreatic lipase. Biochim Biophys Acta. 1441(2-3):173-84.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.
For US Customer: Fax: 267-657-0217 ● Tel: 215-583-7898
Global Customer: Fax :+86-10-5862-8288 ● Tel:+86-400-890-9989 ● http://www.sinobiological.com