

Human CALML5 / CLSP Protein (His & GST Tag)

Catalog Number: 11783-H20E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CLSP

Protein Construction:

A DNA sequence encoding the human CALML5 (AAH39172.1) (Met 1-Glu 146) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant human CALML5/GST chimera consists of 388 amino acids and has a calculated molecular mass of 44.2 kDa. It migrates as an approximately 43 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 150mM NaCl, 1mM DTT, 0.5mM GSH, 10% glycerol, pH 7.8

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:

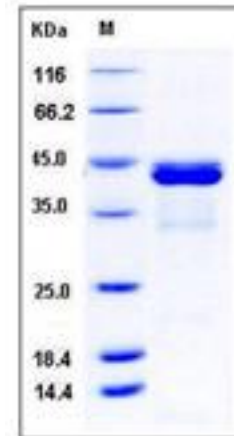
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Calmodulin-like protein 5, also known as Calmodulin-like skin protein, CALML5 and CLSP, is a protein which contains four EF-hand domains. CALML5 / CLSP is particularly abundant in the epidermis where its expression is directly related to keratinocyte differentiation. The expression is very low in lung. CALML5 / CLSP binds calcium. It may be involved in terminal differentiation of keratinocytes. Coxsackievirus and adenovirus receptor (CAR) is a member of the immunoglobulin (Ig) superfamily and a component of epithelial tight junction. CAR functions as a primary receptor for coxsackievirus B and adenovirus (Ad) infection. CALML5 / CLSP is closely related to CAR. The structure and dynamics of human calmodulin-like skin protein CALML5 / CLSP have been characterized by NMR spectroscopy. The mobility of CALML5 / CLSP has been found to be different for the N-terminal and C-terminal domains. The N-terminal domain is characterized by four stable helices, which experience large fluctuations. This is shown to be due to mutations in the hydrophobic core. The overall N-terminal domain behavior is similar both in the full-length protein and in the isolated domain.

References

1. Mehul B., et al., 2000, J. Biol. Chem. 275:12841-12847.
2. Babini E., et al., 2006, Structure 14:1029-1038.
3. Kawabata, K. et al., 2007, Gene Ther. 14 (16):1199-207.

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