Mouse S100A4 Protein

Catalog Number: **50484-MNCH**

General Information

Gene Name Synonym:

18A2; 42a; Capl; FSp1; metastasin; Mts1; PeL98; pk9a

Protein Construction:

A DNA sequence encoding the mouse S100A4 (P07091)(Ala2-Lys101) was expressed and purified with two additional amino acids (Gly & Pro) at the N-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % 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: Gly

Molecular Mass:

The recombinant mouse S100A4 consists of 102 amino acids and predicts a molecular mass of 11.7 KDa. It migrates as an approximately 12 KDa band in SDS-PAGE under reducing conditions.

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:

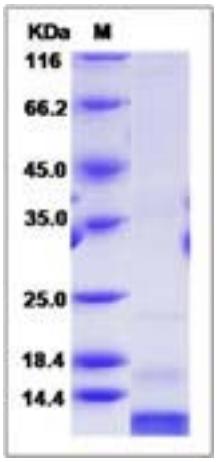
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

S100A4, also known as metastasis-associated protein Mtsl, belongs to the family of small calcium-binding S100 proteins containing two EF-hand calcium-binding motifs. In humans at least 20 S100 family members that are distributed tissue specifically have been identified, and are involved in a number of cellular processes as transducers of calcium signal. S100A4 is a symmetric homodimer, and undergoes a relatively large conformational change upon the typical EF-hand binding calcium, which is necessary for S100A4 to interact with its protein targets and generate biological effects. It can bind the already known targets p53, F-actin, liprin β, myosin heavy chain II, and prevent their phosphorylation and multimerization. It has been demonstrated that S100A4 is directly involved in tumor metastasis including cell motility, invasion, apoptosis, angiogenesis and differentiation, and appears to be a metastasis factor and a molecular marker for clinical prognosis. Multiple alternatively spliced variants encoding the same protein have been identified.

References

1.Ambartsumian N. et al., 1995, Gene. 159: 125-30. 2.Marenholz I. et al., 2004, Biochem Biophys Res Commun. 322: 1111-22. 3.Helfman DM. et al., 2005, Br J Cancer. 92: 1955-8.