

Human S100A13 Protein

Catalog Number: 10991-HNAE



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

OTTHUMP00000034802; protein S100-A13; S100 calcium-binding protein A13

Protein Construction:

A DNA sequence encoding the native human S100A13 (NP_001019381.1) (Met 1-Lys 98) was expressed.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 98 % 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 1

Molecular Mass:

The recombinant human S100A13 consisting of 98 amino acids and has a calculated molecular mass of 11.6 kDa. It migrates as an 13 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 100mM NaCl, pH 8.0

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:

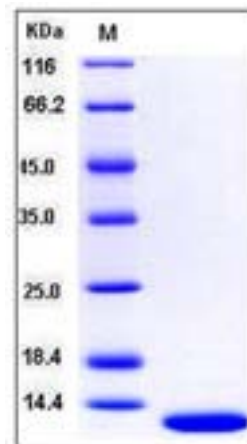
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

S100 protein is a family of low molecular weight protein found in vertebrates characterized by two EF-hand calcium-binding motifs. There are at least 21 different S100 proteins, and the name is derived from the fact that the protein is 100% soluble in ammonium sulfate at neutral pH. Most S100 proteins are disulfide-linked homodimers, and is normally present in cells derived from the neural crest, chondrocytes, macrophages, dendritic cells, etc. S100 proteins have been implicated in a variety of intracellular and extracellular functions. They are involved in regulation of protein phosphorylation, transcription factors, the dynamics of cytoskeleton constituents, enzyme activities, cell growth and differentiation, and the inflammatory response. Protein S100-A13, also known as S100 calcium-binding protein A13, is a member of the S-100 family. It contains two EF-hand domains. S100A13 binds two calcium ions per subunit and one copper ion. Binding of one copper ion does not interfere with calcium binding. S100A13 is required for the copper-dependent stress-induced export of IL1A and FGF1. The calcium-free protein binds to lipid vesicles containing phosphatidylserine, but not to vesicles containing phosphatidylcholine. S100A13 plays a role in the export of proteins that lack a signal peptide and are secreted by an alternative pathway.

References

1. Mandinova A. et al., 2003, J Cell Sci. 116: 2687-96.
2. Amesano F. et al., 2005, Angew Chem Int Ed. 44: 6341-4.
3. Viemann D. et al., 2005, Blood. 105: 2955-62.

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