

Human S100A9 / CAGB / p14 Protein (His Tag)

Catalog Number: 11145-H08B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

60B8AG; CAGB; CFAG; CGLB; L1AG; LIAG; MAC387; MIF; MRP-14; MRP14; NIF; P14

Protein Construction:

A DNA sequence encoding the human S100A9 (NP_002956.1) (Met 1-Pro 114) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized S100A8-His at 10 µg/ml (100 µl/well) can bind S100A9-His (Cat:11145-H08B), The EC₅₀ of S100A9-His (Cat:11145-H08B) is 0.35-0.70 µg/mL.

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 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human S100A9 consists of 124 amino acids and predicts a molecular mass of 14.6 kDa. It migrates as an approximately 16 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:

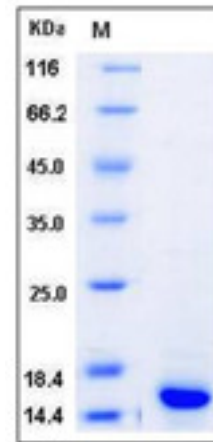
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

S1 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 S1 proteins, and the name is derived from the fact that the protein is 1% soluble in ammonium sulfate at neutral pH. Most S1 proteins are disulfide-linked homodimer, and is normally present in cells derived from the neural crest, chondrocytes, macrophages, dendritic cells, etc. S1 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 S1-A9, also known as S1 calcium-binding protein A9, S1A9, and CAGB, is a member of the S-1 family. S1A9 is expressed by macrophages in acutely inflamed tissues and in chronic inflammation. It is also expressed in epithelial cells constitutively or induced during dermatoses. S1A9 is a calcium-binding protein. It has anti-microbial activity towards bacteria and fungi. The anti-microbial and proapoptotic activity of S1A9 is inhibited by zinc ions. S1A9 plays a role in the development of endotoxic shock in response to bacterial lipopolysaccharide (LPS). It promotes tubulin polymerization when unphosphorylated. It also promotes phagocyte migration and infiltration of granulocytes at sites of wounding. S1A9 plays a role as a pro-inflammatory mediator in acute and chronic inflammation and up-regulates the release of IL8 and cell-surface expression of ICAM1.

References

1. Miyasaki KT. et al., 1993, J Dent Res. 72: 517-23.
2. Fanò G. et al., 1995, Prog Neurobiol. 46 (1): 71-82.
3. Vogl T. et al., 2004, Blood. 104: 4260-8.

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