

# Human S100A4 Protein (Fc Tag)

Catalog Number: 10185-H01H



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## General Information

### Gene Name Synonym:

18A2; 42A; CAPL; FSP1; MTS1; P9KA; PEL98

### Protein Construction:

A DNA sequence encoding the human S100A4 (NP\_002952.1) (Met 1-Lys 101) was expressed with the fused Fc region of human IgG1 at the N-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % 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 °C

**Predicted N terminal:** Glu 20

### Molecular Mass:

The recombinant human Fc/S100A4 is a disulfide-linked homodimeric protein. The reduced monomer consists of 338 amino acids and has a predicted molecular mass of 38.4 kDa. As a result of glycosylation, the apparent molecular mass of rhFc/S100A4 monomer is approximately 40 kDa 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:

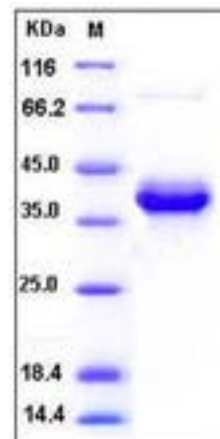
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

S100A4, also known as metastasis-associated protein Mts1, 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.

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