# Recombinant Human S100A1 Protein

**Catalog No.** PKSH031792

***Note:*** Centrifuge before opening to ensure complete recovery of vial contents.

## Description

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|---|---|
| **Synonyms** | S100;S100-alpha;S100A |
| **Species** | Human |
| **Expression Host** | E.coli |
| **Sequence** | Met 1-Ser 94 |
| **Accession** | NP_006262.1 |
| **Calculated Molecular Weight** | 10.5 kDa |
| **Tag** | None |
| **Bioactivity** | Immobilized recombinant human Fc-S100B at 10 μg/mL (100 μl/well) can bind biotinylated human S100A1 with a linear range of 15.6-250 ng/mL. 3. Measured by its ability to bind human His-S100B in functional ELISA. |

## Properties

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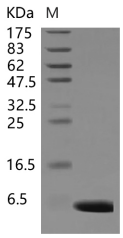
|---|---|
| **Purity** | > 97 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | Please contact us for more information. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 97 % as determined by reducing SDS-PAGE.

## Background

S100A1 is a Ca2+binding protein of the EF-hand type that belongs to the S100 protein family. S100 proteins consisting of



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at least 19 members exist as dimers in the cytoplasm and/or nucleus of a wide range of cells; and are involved in the regulation of a number of cellular processes such as cell-cycle progression and cell differentiation.This protein has been shown to function in the processes including stimulation of Ca2+-induced Ca2+ release; inhibition of microtubule assembly; and inhibition of PKC-mediated phosphorylation.. Phosphoglucomutase is a target protein whose activity is antagonistically regulated by S100A1; and recently; S100A1 is also identified as a potent molecular chaperone and a new member of the Hsp70/Hsp90 multichaperone complex. S100A1 displays a tissue-specific expression pattern with highest levels in myocardium and is considered to be an important regulator of cardiac contractility. Accordingly; reduced expression or mutations of S100A1 gene have been implicated in cardiomyopathies.


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