

## Recombinant Human S100A1 Protein

**Catalog Number:** PKSH031792

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

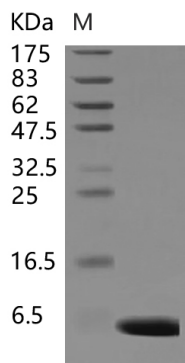
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human S100A1 protein Met 1-Ser 94
<b>Calculated MW</b>	10.5 kDa
<b>Accession</b>	NP_006262.1
<b>Bio-activity</b>	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

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

### Data



> 97 % as determined by reducing SDS-PAGE.

### Background

S100A1 is a Ca<sup>2+</sup>-binding protein of the EF-hand type that belongs to the S100 protein family. S100 proteins consisting of 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 Ca<sup>2+</sup>-induced Ca<sup>2+</sup> release; inhibition of microtubule assembly; and inhibition of PKC-mediated phosphorylation. Phosphoglucosyltransferase 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.

### For Research Use Only

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