

# Recombinant Human S100A1 Protein(Sumo Tag)

Catalog Number: PDEH100559



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

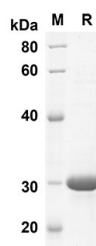
## Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human S100A1 protein Met1-Ser94, with an N-terminal Sumo
<b>Mol_Mass</b>	28.19 kDa
<b>Accession</b>	P23297
<b>Bio-activity</b>	Not validated for activity

## Properties

<b>Purity</b>	> 90% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<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 a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

## Data



SDS-PAGE analysis of Human S100A1 proteins, 2 µg/lane of Recombinant Human S100A1 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 26.3 KD

## Background

Small calcium binding protein that plays important roles in several biological processes such as Ca<sup>2+</sup> homeostasis, chondrocyte biology and cardiomyocyte regulation (PubMed:12804600). In response to an increase in intracellular Ca<sup>2+</sup> levels, binds calcium which triggers conformational changes (PubMed:23351007). These changes allow interactions with specific target proteins and modulate their activity (PubMed:22399290). Regulates a network in cardiomyocytes controlling sarcoplasmic reticulum Ca<sup>2+</sup> cycling and mitochondrial function through interaction with the ryanodine receptors RYR1 and RYR2, sarcoplasmic reticulum Ca<sup>2+</sup>-ATPase/ATP2A2 and mitochondrial F1-ATPase (PubMed:12804600). Facilitates diastolic Ca<sup>2+</sup> dissociation and myofilament mechanics in order to improve relaxation during diastole.

## For Research Use Only

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Tel:400-999-2100

Email:[techsupport@elabscience.cn](mailto:techsupport@elabscience.cn)

Web:[www.elabscience.cn](http://www.elabscience.cn)

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