

**S-100  $\alpha$  Polyclonal Antibody**  
**Catalog # AP72380****Specification**

---

**S-100  $\alpha$  Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IF
Primary Accession	<a href="#">P23297</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**S-100  $\alpha$  Polyclonal Antibody - Additional Information****Gene ID** 6271**Other Names**

S100A1; S100A; Protein S100-A1; S-100 protein alpha chain; S-100 protein subunit alpha; S100 calcium-binding protein A1

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.

IHC-P~~N/A

IF~~1:50~200

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**S-100  $\alpha$  Polyclonal Antibody - Protein Information****Name** S100A1**Synonyms** S100A**Function**

Small calcium binding protein that plays important roles in several biological processes such as Ca(2+) homeostasis, chondrocyte biology and cardiomyocyte regulation (PubMed:<a href="http://www.uniprot.org/citations/12804600" target="\_blank">12804600</a>). In response to an increase in intracellular Ca(2+) levels, binds calcium which triggers conformational changes (PubMed:<a href="http://www.uniprot.org/citations/23351007" target="\_blank">23351007</a>). These changes allow interactions with specific target proteins and modulate their activity (PubMed:<a href="http://www.uniprot.org/citations/22399290" target="\_blank">22399290</a>). Regulates a network in cardiomyocytes controlling sarcoplasmic reticulum Ca(2+) cycling and mitochondrial function through interaction with the ryanodine receptors RYR1 and RYR2, sarcoplasmic reticulum Ca(2+)-ATPase/ATP2A2 and mitochondrial F1-ATPase (PubMed:<a

href="http://www.uniprot.org/citations/12804600" target="\_blank">12804600</a>). Facilitates diastolic Ca(2+) dissociation and myofilament mechanics in order to improve relaxation during diastole (PubMed:<a href="http://www.uniprot.org/citations/11717446" target="\_blank">11717446</a>).

#### Cellular Location

Cytoplasm. Sarcoplasmic reticulum. Mitochondrion {ECO:0000250|UniProtKB:P56565}

#### Tissue Location

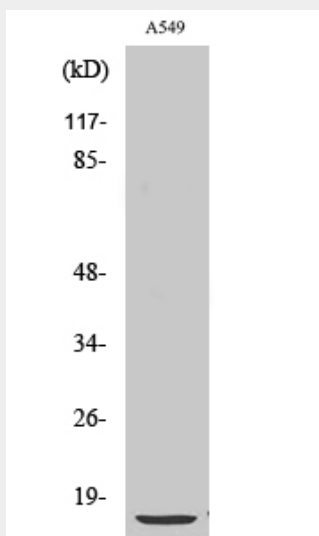
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

### S-100 $\alpha$ Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### S-100 $\alpha$ Polyclonal Antibody - Images



### S-100 $\alpha$ Polyclonal Antibody - Background

Probably acts as a Ca(2+) signal transducer (PubMed:22399290). In response to an increase in intracellular Ca(2+) levels, binds calcium which triggers a conformational change (PubMed:23351007). This conformational change allows interaction of S1001A with specific target proteins, such as TPR- containing proteins, and the modulation of their activity (PubMed:22399290).