

**S100**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # APA139****Specification**

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**S100 - Product Information**

Application	IHC
Primary Accession	<a href="#">P23297</a>
Host	Mouse
Clonality	Monoclonal
Calculated MW	10546 Da

**S100 - Additional Information**

Gene ID	6271
Gene Name	S100A1

**Other Names**

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

**Dilution**

IHC~~1:100~500

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

S100 is for research use only and not for use in diagnostic or therapeutic procedures.

**S100 - Protein Information****Name S100A1**

Synonyms  
Function

**S100A**  
Small calcium binding protein that plays important roles in several biological processes such as Ca(2+) homeostasis, chondrocyte biology and cardiomyocyte regulation (PubMed:[12804600](#)). In response to an increase in intracellular Ca(2+) 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

Cellular Location

Tissue Location

reticulum  $\text{Ca}(2+)$  cycling and mitochondrial function through interaction with the ryanodine receptors RYR1 and RYR2, sarcoplasmic reticulum  $\text{Ca}(2+)$ -ATPase/ATP2A2 and mitochondrial F1-ATPase (PubMed:[12804600](#)). Facilitates diastolic  $\text{Ca}(2+)$  dissociation and myofilament mechanics in order to improve relaxation during diastole (PubMed:[11717446](#)).  
Cytoplasm. Sarcoplasmic reticulum. Mitochondrion  
{ECO:0000250|UniProtKB:P56565}  
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

### S100 - 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](#)

### S100 - Images