

**S100 Antibody**  
**Rabbit mAb**  
**Catalog # AP91279****Specification**

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**S100 Antibody - Product Information**

Application	WB, IHC, FC, IP
Primary Accession	<a href="#">P23297</a>
Clonality	Monoclonal
<b>Other Names</b>	
Bpb; NEF; Protein S100-A1; S100 beta; S100 calcium binding protein A1; S100A; S100B; 100beta;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	10546 Da

**S100 Antibody - Additional Information**

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human S100
Description	Weakly binds calcium but binds zinc very tightly-distinct binding sites with different affinities exist for both ions on each monomer. Physiological concentrations of potassium ion antagonize the binding of both divalent cations, especially affecting high-affinity calcium-binding sites.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

**S100 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

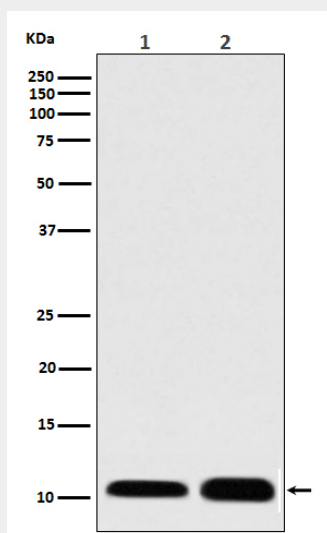
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

### S100 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](#)

### S100 Antibody - Images



Western blot analysis of S100 expression in (1) Human skeletal muscle lysate; (2) RAW 264.7 cell lysate.