

**S100A1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP11779b**

**Specification**

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**S100A1 Antibody (C-term) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P23297</a>
Other Accession	<a href="#">P02639</a> , <a href="#">NP_006262.1</a>
Reactivity	<b>Human</b>
Predicted	<b>Bovine</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>10546</b>
Antigen Region	<b>45-75</b>

**S100A1 Antibody (C-term) - Additional Information**

**Gene ID** 6271

**Other Names**

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

**Target/Specificity**

This S100A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 45-75 amino acids from the C-terminal region of human S100A1.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**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**

S100A1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**S100A1 Antibody (C-term) - 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:[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 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:[12804600](#)). Facilitates diastolic Ca(2+) dissociation and myofilament mechanics in order to improve relaxation during diastole (PubMed:[11717446](#)).

## Cellular Location

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

## Tissue Location

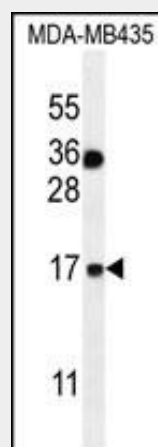
Highly prevalent in heart (PubMed:[12804600](#), PubMed:[1384693](#)). Also found in lesser quantities in skeletal muscle and brain (PubMed:[1384693](#)).

## S100A1 Antibody (C-term) - Protocols

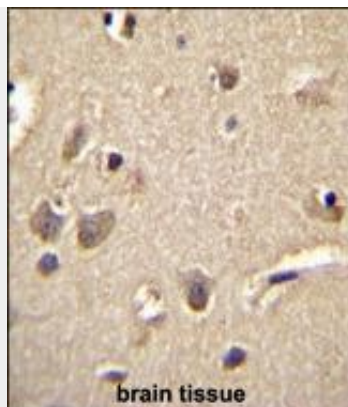
Provided below are standard protocols that you may find useful for product applications.

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

## S100A1 Antibody (C-term) - Images



S100A1 Antibody (C-term) (Cat. #AP11779b) western blot analysis in MDA-MB435 cell line lysates (35ug/lane). This demonstrates the S100A1 antibody detected the S100A1 protein (arrow).



S100A1 Antibody (C-term) (Cat. #AP11779b) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of S100A1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

### **S100A1 Antibody (C-term) - Background**

The protein encoded by this gene is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. This protein may function in stimulation of Ca<sup>2+</sup>-induced Ca<sup>2+</sup> release, inhibition of microtubule assembly, and inhibition of protein kinase C-mediated phosphorylation. Reduced expression of this protein has been implicated in cardiomyopathies.

### **S100A1 Antibody (C-term) - References**

Marlatt, N.M., et al. *Protein Expr. Purif.* 73(1):58-64(2010)  
van Dieck, J., et al. *FEBS Lett.* 584(15):3269-3274(2010)  
Sviatoha, V., et al. *Melanoma Res.* 20(2):118-125(2010)  
DeRycke, M.S., et al. *Am. J. Clin. Pathol.* 132(6):846-856(2009)  
Yusenko, M.V., et al. *Int. J. Biol. Sci.* 5(6):517-527(2009)