

Anti-S100A Antibody
Mouse Monoclonal Antibody
Catalog # AH13488**Specification**

Anti-S100A Antibody - Product Information

Application	IHC-P, IF
Primary Accession	P23297
Other Accession	515715
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	10546

Anti-S100A Antibody - Additional Information**Gene ID** 6271**Other Names**

Bpb; NEF; S100-A1; S100 Alpha Chain; S100 Beta Chain; S100 Calcium Binding Protein A1; S100 Calcium Binding Protein B; S100 Calcium Binding Protein Beta Neural

Application Note

IHC-P~N/A
IF~1:50~200

Format

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

Precautions

Anti-S100A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-S100A 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:[12804600](http://www.uniprot.org/citations/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

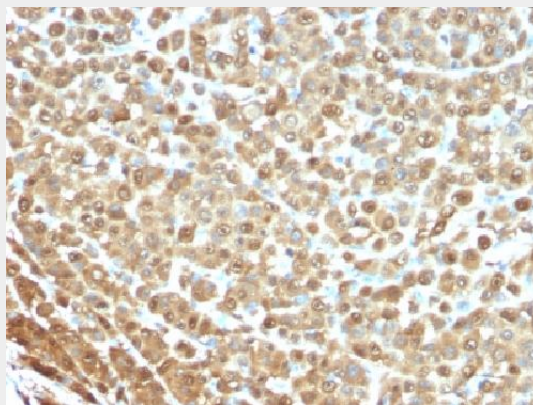
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

Anti-S100A 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](#)

Anti-S100A Antibody - Images



Formalin-fixed, paraffin-embedded human Melanoma stained with S100A Mouse Monoclonal Antibody (S1/61)

Anti-S100A Antibody - Background

S100 belongs to the family of calcium binding proteins. S100A and S100B proteins are two members of the S100 family. S100A is composed of an alpha and a beta chain whereas S100B is composed of two beta chains. This antibody is specific against an epitope located on the

alpha-chain (i.e. in S-100A and S-100B) but not on the beta-chain of S-100 (i.e. in S-100B). This antibody can be used to localize S-100A in various tissue sections. S-100 protein has been found in normal melanocytes, Langerhans cells, histiocytes, chondrocytes, lipocytes, skeletal and cardiac muscle, epithelial and myoepithelial cells of the breast, salivary and sweat glands. Neoplasms derived from these cells also express S-100 protein. Almost all malignant melanomas and cases of histiocytosis X are positive for S-100 protein.