



S100

Mouse Monoclonal Antibody (Mab)
Catalog # APA139

Specification

S100 - Product Information

Application IHC
Primary Accession P23297
Host Mouse
Clonality Monoclonal
Calculated MW 10546 Da

S100 - Additional Information

Gene ID 6271 Gene Name 5100A1

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 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+)

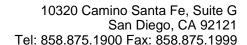
to an increase in intracellular Ca(2+) levels, binds calcium which triggers

conformational changes

(PubMed: <u>23351007</u>). These changes allow interactions with specific target proteins

and modulate their activity

(PubMed:<u>22399290</u>). Regulates a network in cardiomyocytes controlling sarcoplasmic





Cellular Location

Tissue Location

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). 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
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

S100 - Images