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S100 Antibody
Rabbit mAb
Catalog # AP91279

Specification

S100 Antibody - Product Information

Application	**WB, IHC, FC, IP**
Primary Accession	P23297
Clonality	**Monoclonal**

Other Names
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

Dilution	**WB~~1:1000** **IHC~~1:100~500** **FC~~1:10~50** **IP~~N/A**
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: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}

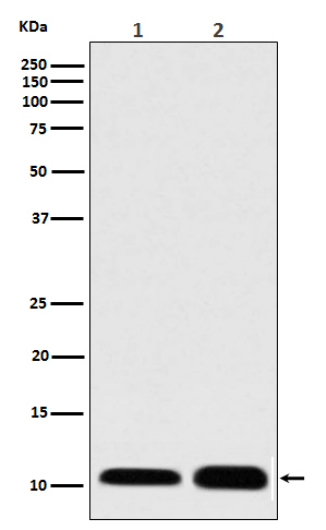
Tissue Location
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

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 Cytomety
- Cell Culture

S100 Antibody - Images



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