

S100 alpha Antibody
Rabbit mAb
Catalog # AP92819**Specification**

S100 alpha Antibody - Product Information

Application	WB, IHC
Primary Accession	P23297
Reactivity	Rat
Clonality	Monoclonal
Other Names	
Bpb; NEF; S100 alpha; S100; S100 Beta Chain; S100A; s100a1;	

Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	10546 Da

S100 alpha Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human S100 alpha
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 alpha 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

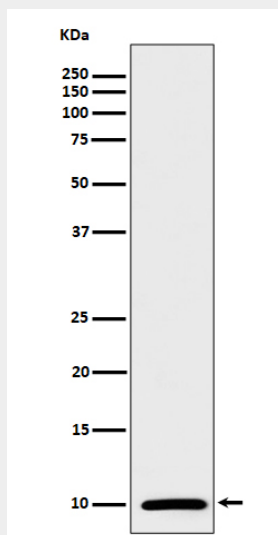
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

S100 alpha 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 alpha Antibody - Images



Western blot analysis of S100 alpha expression in mouse heart lysate.