

S100A1 / S100-A1 Antibody (aa10-59)
Rabbit Polyclonal Antibody
Catalog # ALS15058**Specification**

S100A1 / S100-A1 Antibody (aa10-59) - Product Information

Application	IF, WB, IHC
Primary Accession	P23297
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	11kDa KDa

S100A1 / S100-A1 Antibody (aa10-59) - 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

S100 A1 Antibody detects endogenous levels of total S100 A1 protein.

Reconstitution & Storage

Store at -20°C for up to one year.

Precautions

S100A1 / S100-A1 Antibody (aa10-59) is for research use only and not for use in diagnostic or therapeutic procedures.

S100A1 / S100-A1 Antibody (aa10-59) - 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).

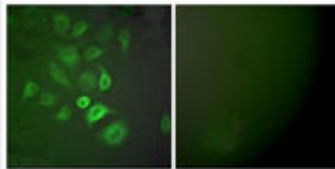
Volume

50 µl

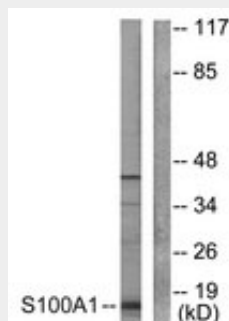
S100A1 / S100-A1 Antibody (aa10-59) - Protocols

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

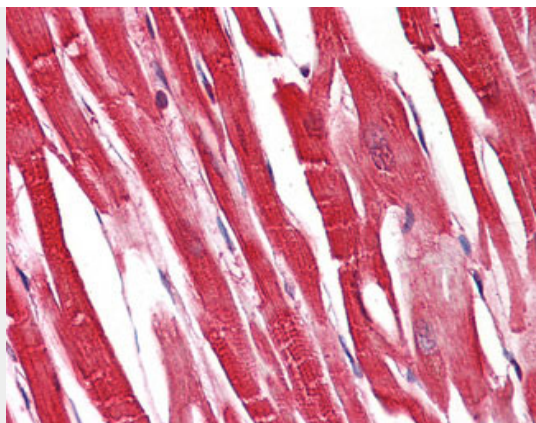
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

S100A1 / S100-A1 Antibody (aa10-59) - Images

Immunofluorescence of A549 cells, using S100 A1 Antibody.



Western blot of extracts from A549 cells, using S100 A1 Antibody.



Anti-S100A1 / S100 antibody IHC of human heart.

S100A1 / S100-A1 Antibody (aa10-59) - Background

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. May mediate calcium-dependent regulation on many physiological processes by interacting with other proteins, such as TPR-containing proteins, and modulating their activity.

S100A1 / S100-A1 Antibody (aa10-59) - References

- Engelkamp D.,et al.Biochemistry 31:10258-10264(1992).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Kalnina N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Goshima N.,et al.Nat. Methods 5:1011-1017(2008).
Gregory S.G.,et al.Nature 441:315-321(2006).