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S100A1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11779b

Specification

S100A1 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P23297
Other Accession	P02639, NP_006262.1
Reactivity	**Human**
Predicted	**Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**10546**
Antigen Region	**45-75**

S100A1 Antibody (C-term) - 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
This S100A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 45-75 amino acids from the C-terminal region of human S100A1.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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
S100A1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

S100A1 Antibody (C-term) - 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}

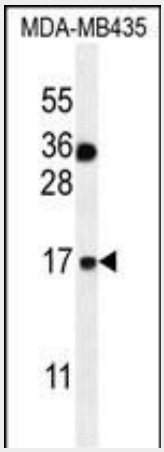
Tissue Location
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

S100A1 Antibody (C-term) - 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

S100A1 Antibody (C-term) - Images



S100A1 Antibody (C-term) (Cat. #AP11779b) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the S100A1 antibody detected the S100A1 protein (arrow).

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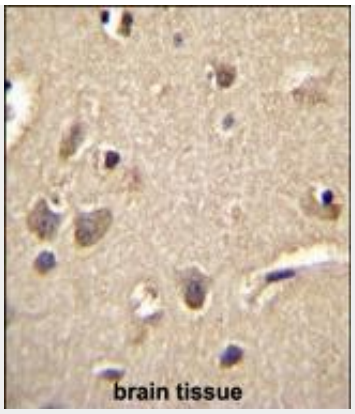

S100A1 Antibody (C-term) (Cat. #AP11779b)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of S100A1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

S100A1 Antibody (C-term) - Background

The protein encoded by this gene is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. This protein may function in stimulation of Ca2+-induced Ca2+ release, inhibition of microtubule assembly, and inhibition of protein kinase C-mediated phosphorylation. Reduced expression of this protein has been implicated in cardiomyopathies.

S100A1 Antibody (C-term) - References

Marlatt, N.M., et al. Protein Expr. Purif. 73(1):58-64(2010)
van Dieck, J., et al. FEBS Lett. 584(15):3269-3274(2010)
Sviatoha, V., et al. Melanoma Res. 20(2):118-125(2010)
DeRycke, M.S., et al. Am. J. Clin. Pathol. 132(6):846-856(2009)
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