

S-100 α Polyclonal Antibody

Catalog # AP73915

Product Information

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|-------------------|------------------------|
| Application | WB, IHC-P |
| Primary Accession | P23297 |
| Reactivity | Human, Mouse, Rat |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 10546 |

Additional Information

| | |
|--------------------|---|
| Gene ID | 6271 |
| Other Names | S100A1; S100A; Protein S100-A1; S-100 protein alpha chain; S-100 protein subunit alpha; S100 calcium-binding protein A1 |
| Dilution | WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-1:300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A |
| Format | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| Storage Conditions | -20°C |

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} |

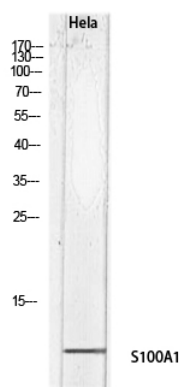
Tissue Location

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

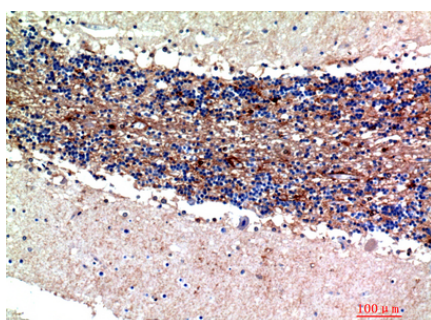
Background

Probably acts as a Ca^{2+} signal transducer (PubMed: [22399290](#)). In response to an increase in intracellular Ca^{2+} levels, binds calcium which triggers a conformational change (PubMed:[23351007](#)). This conformational change allows interaction of S100A1 with specific target proteins, such as TPR- containing proteins, and the modulation of their activity (PubMed:[22399290](#)).

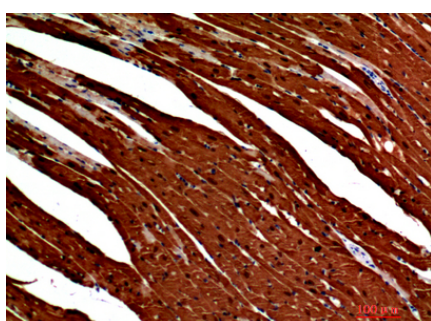
Images



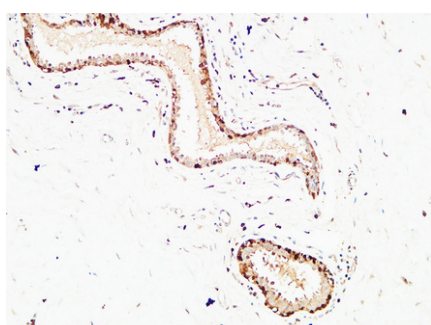
Western blot analysis of HeLa lysis using S100A1 antibody. Antibody was diluted at 1:500. Secondary antibody was diluted at 1:20000



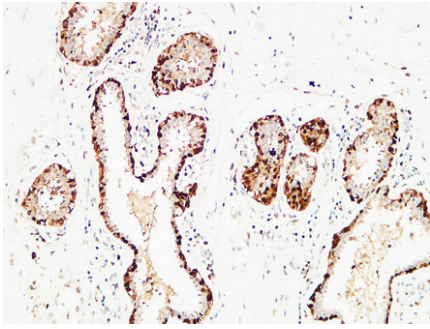
Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:200



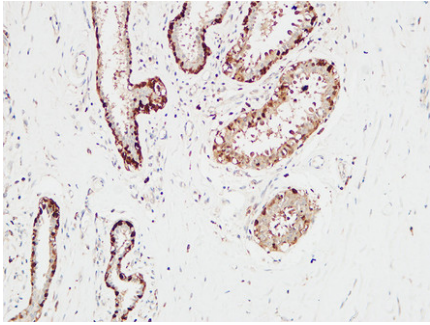
Immunohistochemical analysis of paraffin-embedded mouse-heart, antibody was diluted at 1:200



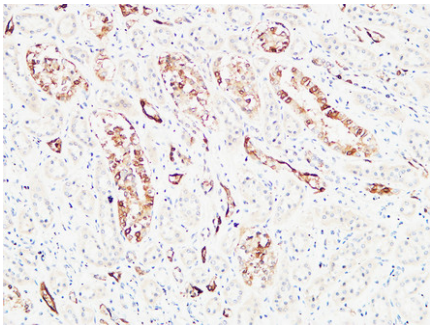
Immunohistochemical analysis of paraffin-embedded Human breast. 1, Antibody was diluted at 1:200(4°, overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200(room temperature, 30min).



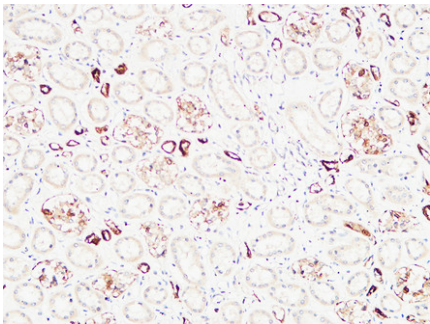
Immunohistochemical analysis of paraffin-embedded Human breast. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



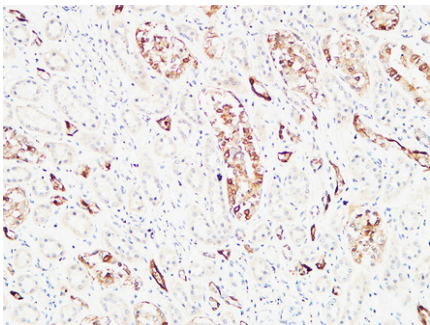
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Immunohistochemical analysis of paraffin-embedded Human kidney. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



Immunohistochemical analysis of paraffin-embedded Human kidney. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



Immunohistochemical analysis of paraffin-embedded Human kidney. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).