

S-100 α Polyclonal Antibody
Catalog # AP73915**Specification**

S-100 α Polyclonal Antibody - Product Information

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

S-100 α Polyclonal Antibody - 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

S-100 α Polyclonal 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

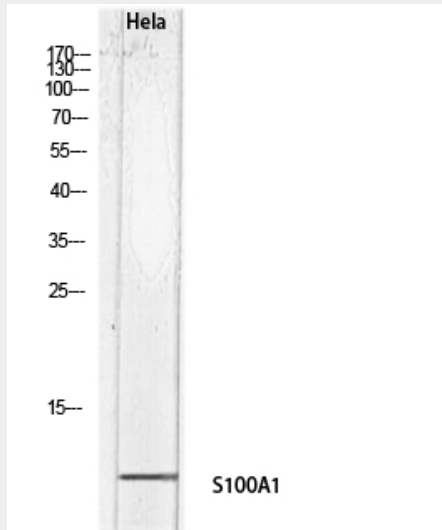
Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).

S-100 α Polyclonal Antibody - Protocols

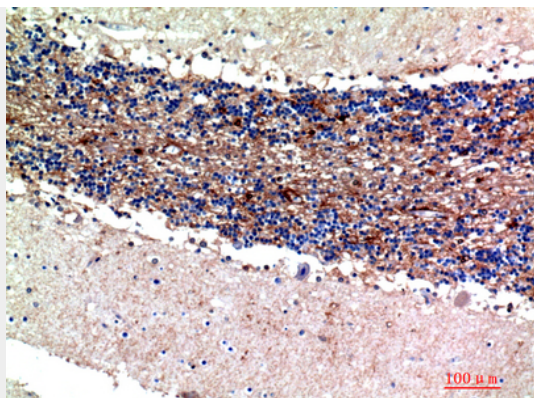
Provided below are standard protocols that you may find useful for product applications.

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

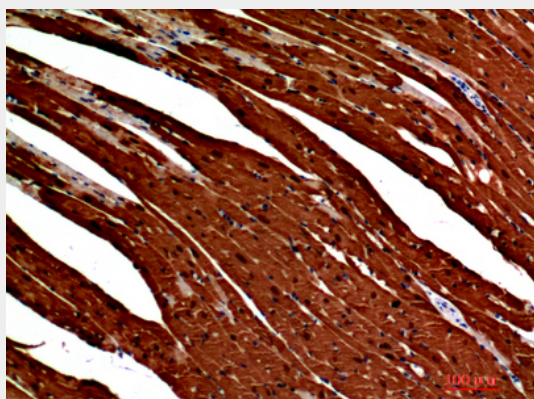
S-100 α Polyclonal Antibody - Images



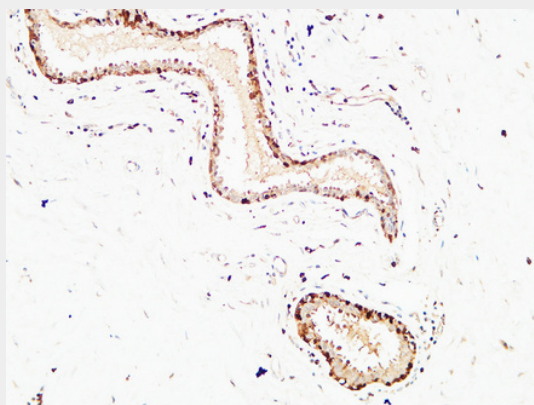
Western blot analysis of HeLa lysis using S100A1 antibody. Antibody was diluted at 1:500. Secondary antibody was diluted at 1:20000



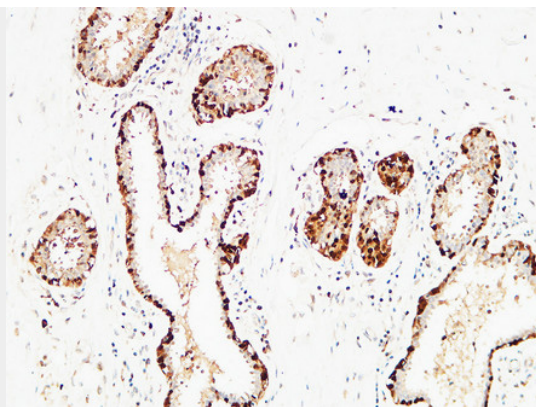
Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:200



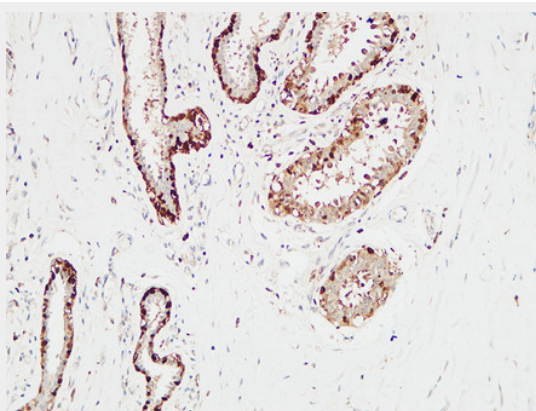
Immunohistochemical analysis of paraffin-embedded mouse-heart, antibody was diluted at 1:200



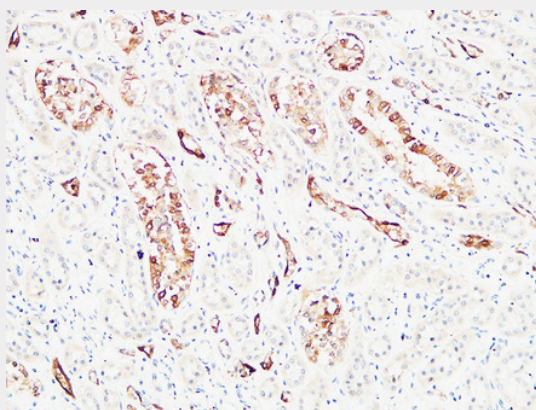
Immunohistochemical analysis of paraffin-embedded Human breast. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



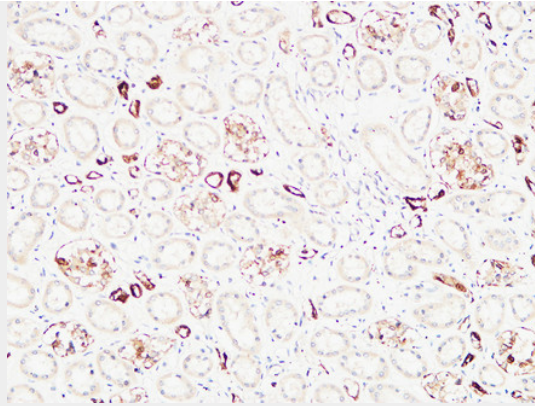
Immunohistochemical analysis of paraffin-embedded Human breast. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



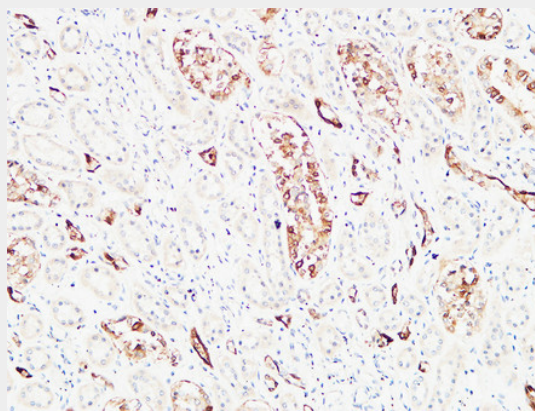
Immunohistochemical analysis of paraffin-embedded Human breast. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



Immunohistochemical analysis of paraffin-embedded Human 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).

S-100 α Polyclonal Antibody - 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 S1001A with specific target proteins, such as TPR- containing proteins, and the modulation of their activity (PubMed:22399290).