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S-100 α Polyclonal Antibody

Catalog # AP72380

Product Information

Application	WB, IHC-P, IF, ICC, E
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. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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

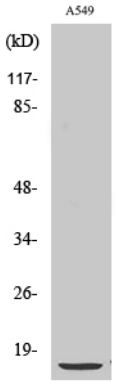
{ECO:0000250|UniProtKB:P56565}

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

Images



Western Blot analysis of various cells using S-100 α Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.