



# S-100 $\alpha$ Polyclonal Antibody

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>                  | YP-Ab-03177                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Reactivity</b>                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Applications</b>                | WB;IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Gene Name</b>                   | S100A1                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Immunogen</b>                   | The antiserum was produced against synthesized peptide derived from human S100 A1. AA range:10-59                                                                                                                                                                                                                                                                                                                                    |
| <b>Specificity</b>                 | S-100 $\alpha$ Polyclonal Antibody detects endogenous levels of S-100 $\alpha$ protein.                                                                                                                                                                                                                                                                                                                                              |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                |
| <b>Dilution</b>                    | 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.                                                                                                                                                                                                                                                                         |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>                      | $\geq 90\%$                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Synonyms</b>                    | Bpb;NEF;Protein S1-A1;S-1 protein alpha chain;S-1 protein subunit alpha;S1 alpha;S1 Alpha Chain;S1;S1 Beta Chain;S1 Calcium Binding Protein A1;S1 Calcium Binding Protein B;S1 Calcium Binding Protein Beta Neural;S1 calcium-binding protein A1;S1 protein alpha polypeptide;S1A;s1a1;S1A1_HUMAN;S-100 $\alpha$ ;S100A1;Protein S100-A1;S100A;S-100 protein alpha chain;S-100 protein subunit alpha;S100 calcium-binding protein A1 |
| <b>Observed Band</b>               | 10kD                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Calculated Molecular Weight</b> | 10kD                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Cell Pathway</b>                | Cytoplasm . Sarcoplasmic reticulum . Mitochondrion .                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Tissue Specificity</b>          | Highly prevalent in heart (PubMed:12804600, PubMed:1384693). Also found in lesser quantities in skeletal muscle and brain (PubMed:1384693).                                                                                                                                                                                                                                                                                          |
| <b>Function</b>                    | function: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.,similarity:Belongs to the S-100 family.,similarity:Contains 2 EF-hand domains.,subunit:Dimer of either two                  |



alpha chains, or two beta chains, or one alpha and one beta chain.,tissue specificity:Highly prevalent in heart. Also found in lesser quantities in skeletal muscle and brain.,

**Background**

S100 calcium binding protein A1(S100A1) Homo sapiens 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 Ca<sup>2+</sup>-induced Ca<sup>2+</sup> release, inhibition of microtubule assembly, and inhibition of protein kinase C-mediated phosphorylation. Reduced expression of this protein has been implicated in cardiomyopathies. [provided by RefSeq, Jul 2008],

**matters needing attention**

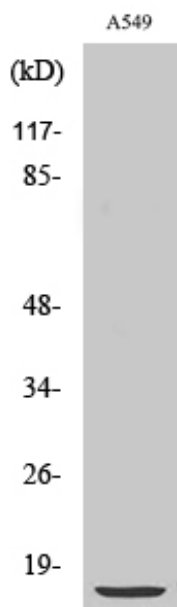
Avoid repeated freezing and thawing!

**Usage suggestions**

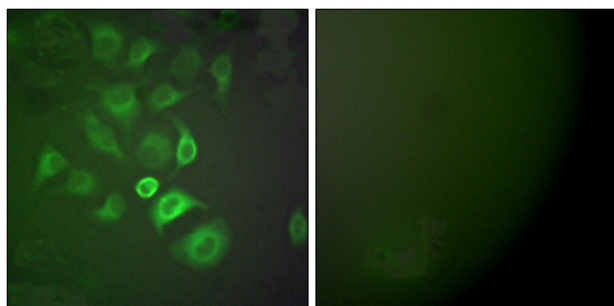
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



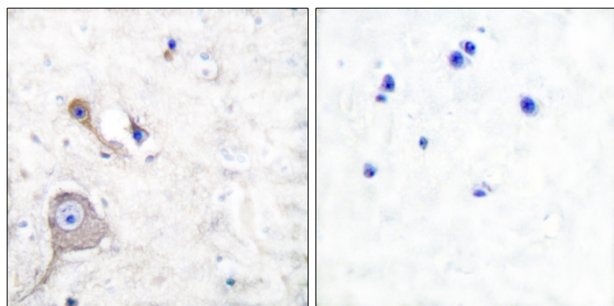
## Products Images



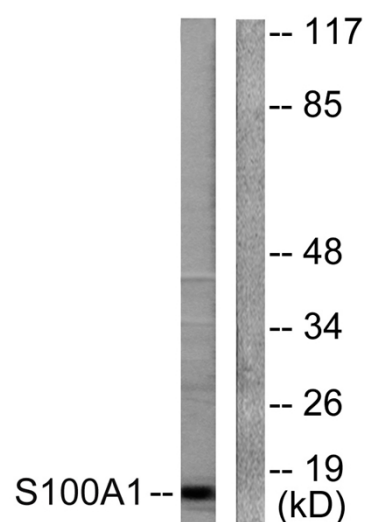
Western Blot analysis of various cells using S-100  $\alpha$  Polyclonal Antibody



Immunofluorescence analysis of A549 cells, using S100 A1 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using S100 A1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from A549 cells, using S100 A1 Antibody. The lane on the right is blocked with the synthesized peptide.