

**Product Name: S100 (1E16) Rabbit Monoclonal Antibody****Catalog #: AMRe17458**

For research use only.

**Summary**

<b>Description</b>	Recombinant rabbit monoclonal antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,IF-P
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	0.23mg/ml. The concentration of this product may be batch-dependent.
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:200,IF-P 1:100-1:200
<b>Molecular Weight</b>	11kDa

**Antigen Information**

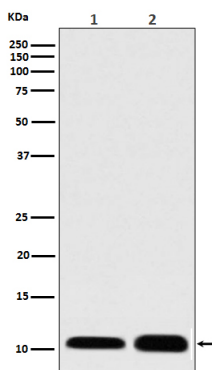
<b>Gene Name</b>	S100A1
<b>Alternative Names</b>	Bpb; NEF; Protein S100-A1; S100 beta; S100 calcium binding protein A1; S100A; S100B; 100beta;
<b>Gene ID</b>	6271.0
<b>SwissProt ID</b>	P23297
<b>Immunogen</b>	A synthetic peptide of human S100 alpha

**Background**

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. Small calcium binding protein that plays important roles in several biological processes such as  $\text{Ca}(2+)$  homeostasis, chondrocyte biology and cardiomyocyte regulation (PubMed:12804600). In response to an increase in intracellular  $\text{Ca}(2+)$  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  $\text{Ca}(2+)$  cycling and mitochondrial function through interaction with the ryanodine receptors RYR1 and RYR2, sarcoplasmic reticulum  $\text{Ca}(2+)$ -ATPase/ATP2A2 and mitochondrial F1-ATPase (PubMed:12804600). Facilitates diastolic  $\text{Ca}(2+)$  dissociation and myofilament mechanics in order to improve relaxation during diastole (PubMed:11717446).

## Research Area

## Image Data



Western blot analysis of S100 expression in (1) Human skeletal muscle lysate; (2) RAW 264.7 cell lysate.