

For Research Use Only

# Sarcalumenin Polyclonal antibody

Catalog Number:33909-1-AP



## Basic Information

<b>Catalog Number:</b> 33909-1-AP	<b>GenBank Accession Number:</b> BC160181	<b>Purification Method:</b> Antigen affinity Purification
<b>Size:</b> 150ul , Concentration: 380 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 6345	<b>Recommended Dilutions:</b> WB: 1:1000-1:8000 IHC: 1:400-1:1600
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q86TD4	
<b>Isotype:</b> IgG	<b>Full Name:</b> sarcalumenin	
<b>Immunogen Catalog Number:</b> AG40750	<b>Observed MW:</b> 53 kDa	

## Applications

**Tested Applications:**  
WB, IHC, ELISA

**Species Specificity:**  
human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB :** mouse heart tissue, mouse skeletal muscle tissue, rat heart tissue, rat skeletal muscle tissue

**IHC :** mouse skeletal muscle tissue, mouse heart tissue

## Background Information

Sarcalumenin, also known as SAR, is a luminal Ca<sup>2+</sup> buffer protein with high capacity but low affinity for calcium binding found predominantly in the longitudinal sarcoplasmic reticulum (SR) of fast and slow-twitch skeletal muscles and the heart. Together with other luminal Ca<sup>2+</sup> buffer proteins, SAR plays a critical role in modulation of Ca<sup>2+</sup> uptake and Ca<sup>2+</sup> release during excitation-contraction coupling in muscle fibers. SAR appears to be important in a wide range of other physiological functions, such as stabilizing Sarco-Endoplasmic Reticulum Calcium ATPase (SERCA), regulating Store-Operated Calcium Entry (SOCE) mechanisms, enhancing muscle fatigue resistance, and promoting muscle development. The SAR has a molecular weight of 160 kDa (long isoform). Due to alternative splicing, the SAR gene also encodes a 53 kDa glycoprotein variant (short isoform), which shares the identical COOH-terminal half with SAR and lacks Ca<sup>2+</sup>-binding capacity (PMID: 19502553, PMID: 36899851).

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

**\*\*\* 20ul sizes contain 0.1% BSA**

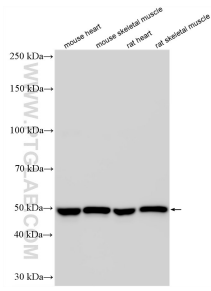
For technical support and original validation data for this product please contact:

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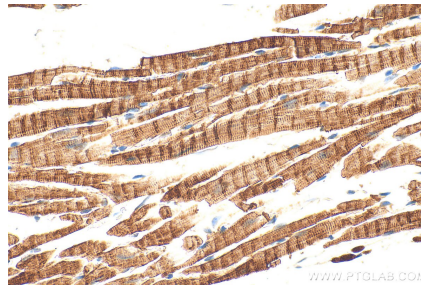
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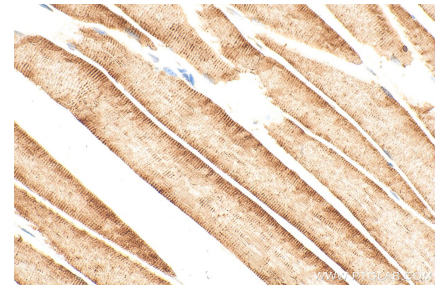
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 33909-1-AP (Sarcalumenin antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 33909-1-AP (Sarcalumenin antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 33909-1-AP (Sarcalumenin antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).