

For Research Use Only

Sarcalumenin Polyclonal antibody

Catalog Number:33909-1-AP



Basic Information

Catalog Number: 33909-1-AP	GenBank Accession Number: BC160181	Purification Method: Antigen affinity Purification
Source: Rabbit	GeneID (NCBI): 6345	Recommended Dilutions: WB: 1:1000-1:8000 IHC: 1:400-1:1600
Isotype: IgG	UNIPROT ID: Q86TD4	
Immunogen Catalog Number: AG40750	Full Name: sarcalumenin	
	Observed MW: 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 Ca²⁺ 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 Ca²⁺ buffer proteins, SAR plays a critical role in modulation of Ca²⁺ uptake and Ca²⁺ 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 Ca²⁺-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

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

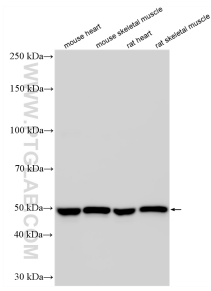
T: 4006900926

E: Proteintech-CN@ptglab.com

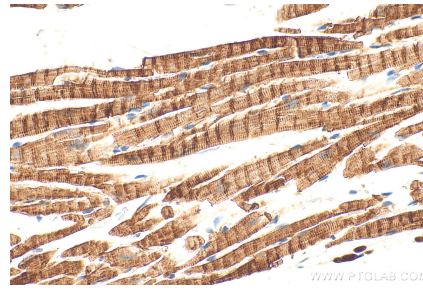
W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

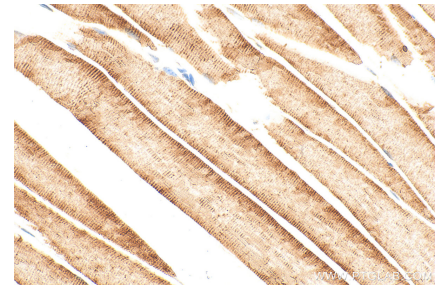
Selected Validation Data



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).