

For Research Use Only

# ATP2A1 Recombinant antibody

Catalog Number: 84213-5-RR



## Basic Information

<b>Catalog Number:</b> 84213-5-RR	<b>GenBank Accession Number:</b> BC037354	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 1000 µg/ml	<b>GeneID (NCBI):</b> 487	<b>CloneNo.:</b> 241500D12
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> O14983	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:125-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> ATPase, Ca <sup>++</sup> transporting, cardiac muscle, fast twitch 1	
<b>Immunogen Catalog Number:</b> AG17944	<b>Calculated MW:</b> 1001 aa, 110 kDa	
	<b>Observed MW:</b> 110 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 skeletal muscle tissue, rat skeletal muscle tissue

IHC : mouse skeletal muscle tissue,

## Background Information

ATP2A1 also known as SERCA1, encodes one of the SERCA Ca<sup>2+</sup>-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. This enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen and is involved in muscular excitation and contraction. Mutations in ATP2A1 cause some autosomal recessive forms of Brody disease (PMID: 23911890, 10914677).

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

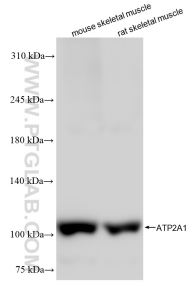
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

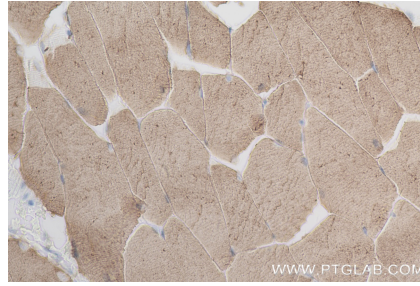
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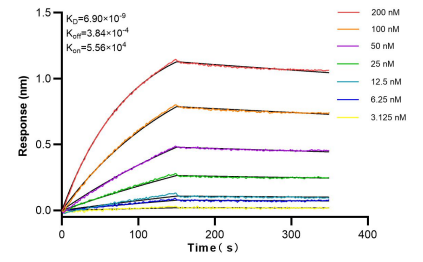
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 84213-5-RR (ATP2A1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 84213-5-RR (ATP2A1 antibody) at dilution of 1:250 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Bioluminescence resonance energy transfer (BRET) kinetic assays of 84213-5-RR against Human ATP2A1 were performed. The affinity constant is 6.90 nM.