

## Basic Information

<b>Catalog Number:</b> 86050-1-RR	<b>GenBank Accession Number:</b> BC035588	<b>Purification Method:</b> Protein A purification
<b>Concentration:</b> 1000 µg/ml	<b>GeneID (NCBI):</b> 488	<b>CloneNo.:</b> 250667D7
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P16615	<b>Recommended Dilutions:</b> WB: 1:2000-1:10000 IHC: 1:400-1:1600 IF/ICC: 1:200-1:800
<b>Isotype:</b> IgG	<b>Full Name:</b> ATPase, Ca++ transporting, cardiac muscle, slow twitch 2	
<b>Immunogen Catalog Number:</b> AG26177	<b>Calculated MW:</b> 1042 aa, 115 kDa	
	<b>Observed MW:</b> 110-115 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, 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:** 37°C incubated mouse heart tissue, 37°C incubated mouse heart, rat heart, 37°C incubated rat heart

**IHC:** mouse skeletal muscle tissue,

**IF/ICC:** C2C12 cells,

## Background Information

ATP2A2, also known as SERCA2 (Sarco/endoplasmic reticulum-type calcium transport ATPase 2), is a 110 kDa magnesium-dependent enzyme catalyzing the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen. Human SERCA2 gene gives rise to several alternatively spliced isoforms: SERCA2a, SERCA2b and SERCA2c. ATP2A2 is mainly expressed in the sarcoplasmic reticulum of muscle cells and the endoplasmic reticulum of most cell types.

## Storage

**Storage:**

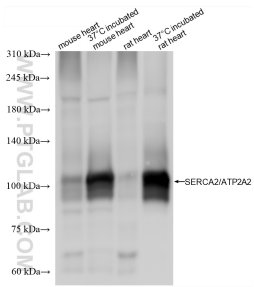
Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

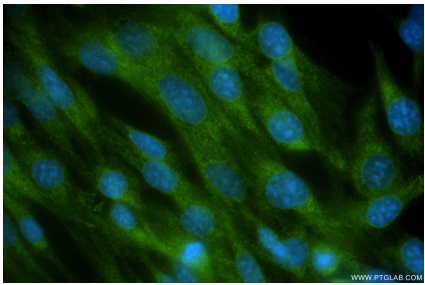
**Aliquoting is unnecessary for -20°C storage**

Selected Validation Data

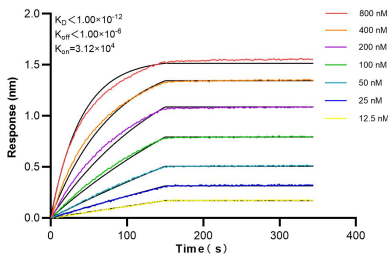


Various lysates were subjected to SDS PAGE followed by western blot with 86050-1-RR (SERCA2,ATP2A2 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.

Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 86050-1-RR (SERCA2/ATP2A2 antibody) at dilution of 1:800 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed C2C12 cells using SERCA2/ATP2A2 antibody (86050-1-RR, Clone: 250667D7 ) at dilution of 1:0 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 86050-1-RR against Human SERCA2/ATP2A2 were performed. The affinity constant is below 1 pM.