

## Product datasheet

# Anti-SERCA1 ATPase antibody [EPR7321] ab133275

Recombinant RabMAb

3 Images

### Overview

<b>Product name</b>	Anti-SERCA1 ATPase antibody [EPR7321]
<b>Description</b>	Rabbit monoclonal [EPR7321] to SERCA1 ATPase
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide within Human SERCA1 ATPase aa 1-100 (N terminal). The exact sequence is proprietary. Database link: <a href="#">O14983</a>
<b>Positive control</b>	fetal muscle lysate human skeletal muscle tissue
<b>General notes</b>	Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

This product is a recombinant monoclonal antibody, which offers several advantages including:

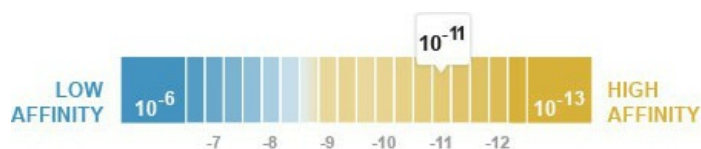
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
<b>Dissociation constant (K<sub>D</sub>)</b>	K <sub>D</sub> = 2.70 x 10 <sup>-11</sup> M



[Learn more about K<sub>D</sub>](#)

<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol, 0.05% BSA, 50% Tissue culture supernatant
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR7321
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab133275** in the following tested applications.

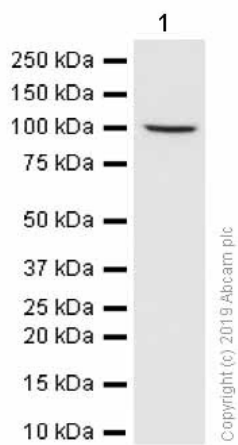
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/10000 - 1/50000. Predicted molecular weight: 110 kDa.
IP		1/10 - 1/100.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

<b>Function</b>	Key regulator of striated muscle performance by acting as the major Ca(2+) ATPase responsible for the reuptake of cytosolic Ca(2+) into the sarcoplasmic reticulum. Catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen. Contributes to calcium sequestration involved in muscular excitation/contraction.
<b>Tissue specificity</b>	Skeletal muscle, fast twitch muscle (type II) fibers.
<b>Involvement in disease</b>	Brody myopathy
<b>Sequence similarities</b>	Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIA subfamily.
<b>Developmental stage</b>	Isoform SERCA1A accounts for more than 99% of SERCA1 isoforms expressed in adult skeletal muscle, while isoform SERCA1B predominates in neo-natal skeletal muscle.
<b>Cellular localization</b>	Endoplasmic reticulum membrane. Sarcoplasmic reticulum membrane.

## Images



Western blot - Anti-SERCA1 ATPase antibody [EPR7321] (ab133275)

Anti-SERCA1 ATPase antibody [EPR7321] (ab133275) at 1/10000 dilution + fetal muscle lysate at 10 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

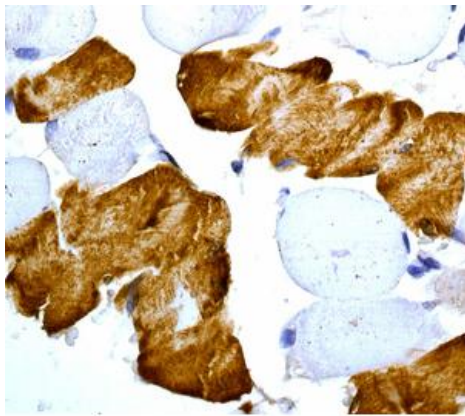
**Predicted band size:** 110 kDa

**Observed band size:** 100 kDa

[why is the actual band size different from the predicted?](#)

Blocking/Diluting buffer and concentration: 5% NFD/MTBST.

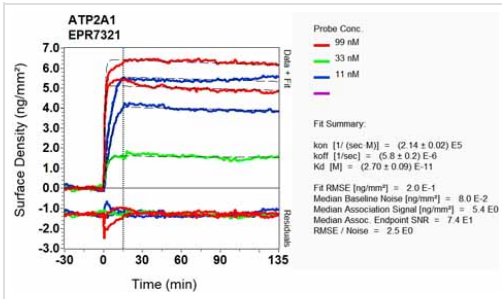
Exposure time: 180 seconds.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SERCA1 ATPase antibody [EPR7321] (ab133275)

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labelling SERCA1 ATPase using ab133275, at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Other - Anti-SERCA1 ATPase antibody [EPR7321]  
(ab133275)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

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