abcam

Product datasheet

Anti-SERCA1 ATPase antibody [EPR7322] ab129104

Recombinant RabMAb

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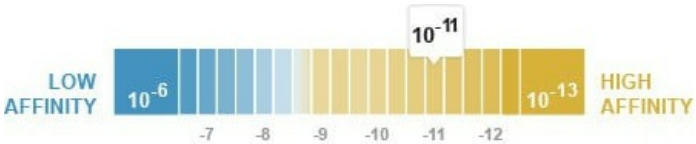
Overview

Product name	Anti-SERCA1 ATPase antibody [EPR7322]
Description	Rabbit monoclonal [EPR7322] to SERCA1 ATPase
Host species	Rabbit
Specificity	ab129104 can not recognize SERCA1A (ATP2A1A). ab129104 recognizes SERCA1B (ATP2A1B) only.
Tested applications	**Suitable for:** WB **Unsuitable for:** IHC-P or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human SERCA1 ATPase aa 950-1050. The exact sequence is proprietary.
Positive control	Human fetal muscle, Rat muscle and Mouse muscle lysates.
General notes	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® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	$K_D = 4.50 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7322
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab129104 in the following tested applications.

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

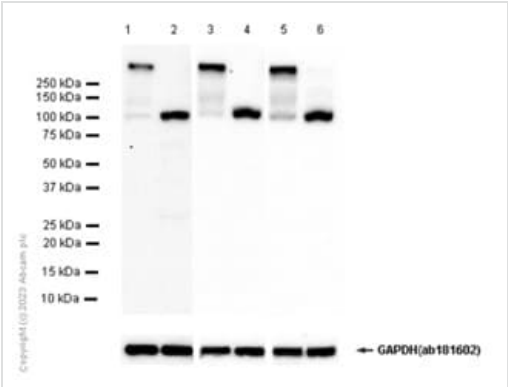
Application	Abreviews	Notes
WB	★★★★☆ (1)	1/1000 - 1/10000. Detects a band of approximately 100 kDa (predicted molecular weight: 110 kDa).

Application notes Is unsuitable for IHC-P or IP.

Target

Function	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.
Tissue specificity	Skeletal muscle, fast twitch muscle (type II) fibers.
Involvement in disease	Brody myopathy
Sequence similarities	Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIA subfamily.
Developmental stage	Isoform SERCA1A accounts for more than 99% of SERCA1 isoforms expressed in adult skeletal muscle, while isoform SERCA1B predominates in neo-natal skeletal muscle.
Cellular localization	Endoplasmic reticulum membrane. Sarcoplasmic reticulum membrane.

Images



Western blot - Anti-SERCA1 ATPase antibody [EPR7322] (ab129104)

All lanes : Anti-SERCA1 ATPase antibody [EPR7322] (ab129104) at 1/1000 dilution

Lane 1 : Human skeletal muscle lysate, boiled
Lane 2 : Human skeletal muscle lysate, unboiled
Lane 3 : Mouse skeletal muscle lysate, boiled
Lane 4 : Mouse skeletal muscle lysate, unboiled
Lane 5 : Rat skeletal muscle lysate, boiled
Lane 6 : Rat skeletal muscle lysate, unboiled

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 110 kDa
Observed band size: 100 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

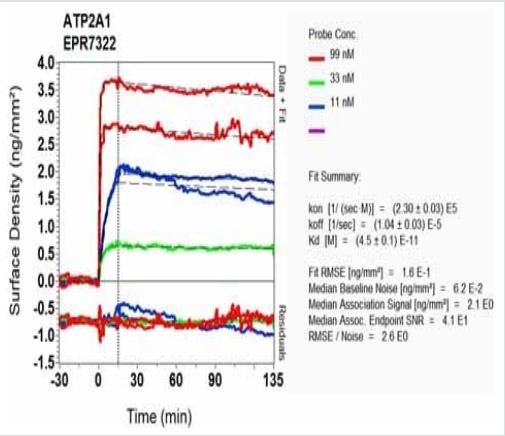
We recommend not to boil the samples after lysis to get desired WB results.

Exposure time:

Lanes 1 and 2: 180 seconds

Lanes 3 and 4: 10 seconds

Lanes 5 and 6: 20 seconds



OI-RD Scanning - Anti-SERCA1 ATPase antibody [EPR7322] (ab129104)

Anti-SERCA1 ATPase antibody [EPR7322] (ab129104)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

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