

Datasheet for ABIN3043792

**anti-ATP2A1/SERCA1 antibody (N-Term)**

3 Images

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## Overview

Quantity:	100 µg
Target:	ATP2A1/SERCA1 (ATP2A1)
Binding Specificity:	AA 1-32, N-Term
Reactivity:	Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

## Product Details

Purpose:	Rabbit IgG polyclonal antibody for Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 (ATP2A1) detection. Tested with WB, IHC-P in Human, Mouse, Rat.
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of human SERCA1 ATPase (1-32aa MEAAHAKTTEECLAYFGVSETTGLTPDQVKRN), different from the related mouse and rat sequences by three amino acids.
Sequence:	MEAAHAKTTE ECLAYFGVSE TTGLTPDQVK RN
Isotype:	IgG
Cross-Reactivity (Details):	<p>Predicted Cross Reactivity: human</p> <p>No cross reactivity with other proteins.</p> <p>Predicted Cross Reactivity: Species predicted to be fit for the product based on sequence similarities.</p>
Characteristics:	Rabbit IgG polyclonal antibody for Sarcoplasmic/endoplasmic reticulum calcium ATPase 1

## Product Details

(ATP2A1) detection. Tested with WB, IHC-P in Human, Mouse, Rat.

Gene Name: ATPase, Ca<sup>++</sup> transporting, cardiac muscle, fast twitch 1

Protein Name: Sarcoplasmic/endoplasmic reticulum calcium ATPase 1

Purification: Immunogen affinity purified.

## Target Details

Target: ATP2A1/SERCA1 (ATP2A1)

Alternative Name: ATP2A1 ([ATP2A1 Products](#))

Background: SERCA1, also called ATP2A1, is an enzyme that in humans is encoded by the ATP2A1 gene. This gene encodes one of the SERCA Ca(2<sup>+</sup>)-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. The SERCA1 gene is mapped to 16p11.2. 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. It has been determined that the human SERCA1 gene is 26 kb long and contains 23 exons, of which can be alternatively spliced. Mutations in this gene cause some autosomal recessive forms of Brody disease, characterized by increasing impairment of muscular relaxation during exercise.

Synonyms: fast twitch skeletal muscle isoform antibody|AT2A1\_HUMAN antibody|ATP2A antibody|ATP2A1 antibody|ATPase Ca<sup>++</sup> transporting cardiac muscle fast twitch 1 antibody|ATPase Ca<sup>++</sup> transporting fast twitch 1 antibody|ATPase, Ca(2<sup>+</sup>)-transporting fast twitch 1 antibody|Calcium pump 1 antibody|Calcium transporting ATPase sarcoplasmic reticulum type fast twitch skeletal muscle isoform antibody|Calcium-transporting ATPase sarcoplasmic reticulum type antibody|Endoplasmic reticulum class 1/2 Ca(2<sup>+</sup>) ATPase antibody|Fast skeletal muscle SR calcium ATPase antibody|OTTHUMP00000162561 antibody|OTTHUMP00000162562 antibody|Sarcoendoplasmic reticulum calcium ATPase antibody|Sarcoplasmic reticulum Ca(2<sup>+</sup>)-ATPase 1 antibody|Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 antibody|SERCA 1 antibody|SERCA1 antibody|SERCA1 truncated isoform, included antibody|SR Ca(2<sup>+</sup>) ATPase 1 antibody|SR Ca(2<sup>+</sup>)-ATPase 1 antibody

Gene ID: 487

UniProt: [O14983](#)

Pathways: [Ribonucleoside Biosynthetic Process](#)

## Application Details

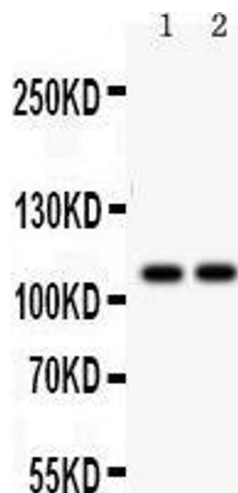
Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Mouse, Rat, Predicted Species: Human IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Mouse, Rat, Predicted Species: Human, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested. Optimal dilutions should be determined by end users.
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Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
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Restrictions:	For Research Use only
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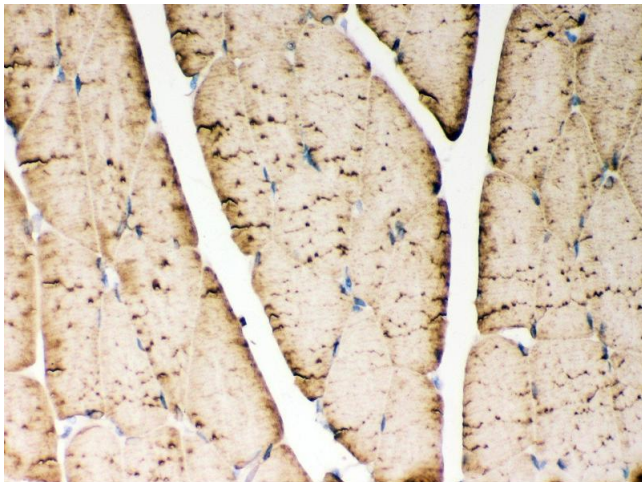
## Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.



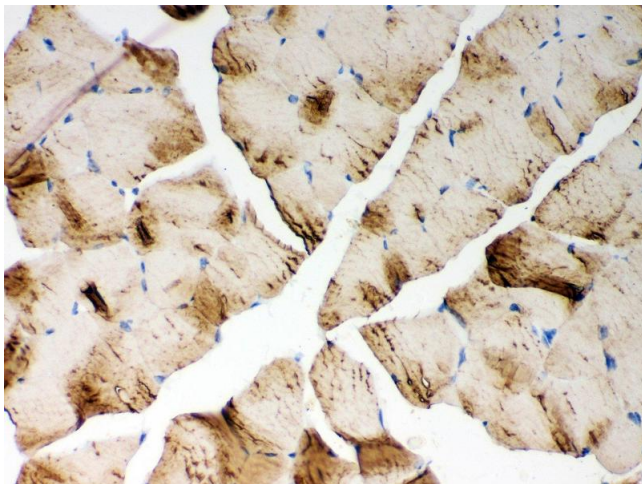
#### Western Blotting

**Image 1.** Anti- ATP2A1 antibody, Western blotting All lanes: Anti ATP2A1 at 0.5ug/ml Lane 1: Rat Skeletal Muscle Tissue Lysate at 50ug Lane 2: Mouse Skeletal Muscle Tissue Lysate at 50ug Predicted bind size: 110KD Observed bind size: 110KD



#### Immunohistochemistry

**Image 2.** Anti- ATP2A1 antibody, IHC(P) IHC(P): Rat Skeletal Muscle Tissue



#### Immunohistochemistry

**Image 3.** Anti- ATP2A1 antibody, IHC(P) IHC(P): Mouse Skeletal Muscle Tissue