Datasheet for ABIN3044279

anti-ATP2A1/SERCA1 antibody (Middle Region)

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Overview

Quantity:	100 µg
Target:	ATP2A1/SERCA1 (ATP2A1)
Binding Specificity:	AA 665-680, Middle Region
Reactivity:	Human, Rat
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 in the middle region of human SERCA1 ATPase(665-680aa EQREACRRACCFARVE), identical to the related rat and mouse sequences.
Sequence:	EQREACRRAC CFARVE
Isotype:	IgG
Cross-Reactivity (Details):	Predicted Cross Reactivity: mouse No cross reactivity with other proteins. Predicted Cross Reactivity: Species predicted to be fit for the product based on sequence similarities.
Characteristics:	Rabbit IgG polyclonal antibody for Sarcoplasmic/endoplasmic reticulum calcium ATPase 1(ATP2A1) detection. Tested with WB, IHC-P in Human,Mouse,Rat.

Product Details

	Gene Name: ATPase, Ca++ transporting, cardiac muscle, fast twitch 1 Protein Name: Sarcoplasmic/endoplasmic reticulum calcium ATPase 1(SERCA1/SR Ca(2+)-ATPase 1)
Purification:	Immunogen affinity purified.

Target Details

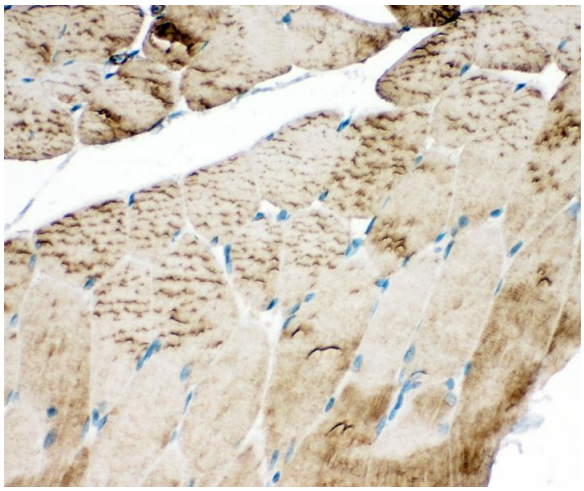
Target:	ATP2A1/SERCA1 (ATP2A1)
Alternative Name:	ATP2A1 (ATP2A1 Products)
Background:	SERCA1(SARCOPLASMIC RETICULUM Ca(2+)-ATPase 1), also called ATP2A1, is an enzyme that in humans is encoded by the ATP2A1 gene. This gene encodes one of the SERCA Ca(2+)-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. The SERCA1 gene is mapped on 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. Zhang et al.(1995)determined that the human ATP2A1 gene is 26 kb long and contains 23 exons, 1 of which can be alternatively spliced.Overexpression of S1T, but not full-length SERCA1, induced ER stress in HeLa cells and amplified ER stress through the PERK(EIF2AK3)-EIF2A -ATF4 -CHOP(DDIT3) pathway. 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++ transporting cardiac muscle fast twitch 1 antibody|ATPase Ca++ transporting fast twitch 1 antibody|ATPase, Ca(2+)-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|EC 3.6.3.8 antibody|Endoplasmic reticulum class 1/2 Ca(2+) ATPase antibody|Fast skeletal muscle SR calcium ATPase antibody|fast twitch skeletal muscle isoform antibody|OTTHUMP00000162561 antibody|OTTHUMP00000162562 antibody|Sarcoendoplasmic reticulum calcium ATPase antibody|Sarcoplasmic reticulum Ca(2+)-ATPase 1 antibody|Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 antibody|SERCA 1 antibody|SERCA1 antibody|SERCA1 truncated isoform, included antibody|SR Ca(2+) ATPase 1 antibody|SR Ca(2+)-ATPase 1 antibody
UniProt:	O14983
Pathways:	Ribonucleoside Biosynthetic Process

Application Details

Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse, 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.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

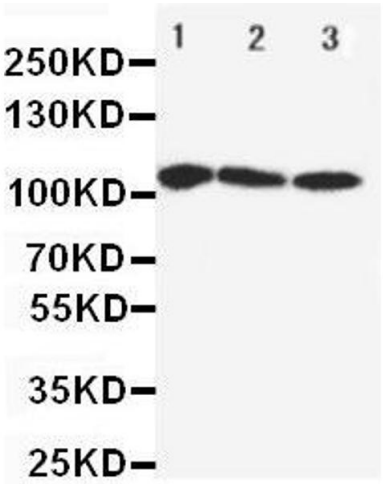
Handling

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 Na2HPO4, 0.05 mg Thimerosal, 0.05 mg Sodium azide.
Preservative:	Thimerosal (Merthiolate), Sodium azide
Precaution of Use:	This product contains Sodium azide and Thimerosal (Merthiolate): POISONOUS AND HAZARDOUS SUBSTANCES 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.
Expiry Date:	12 months



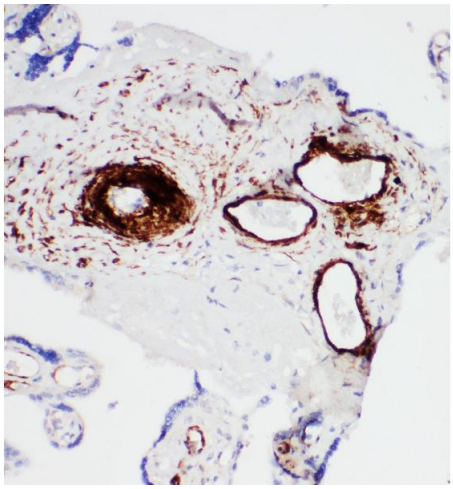
Immunohistochemistry

Image 1. Anti-SERCA1 ATPase antibody, IHC(P) IHC(P): Rat Skeletal Muscle Tissue



Western Blotting

Image 2. Anti-SERCA1 ATPase antibody, Western blotting Lane 1: Rat Skeletal Muscle Tissue Lysate Lane 2: PANC Cell Lysate Lane 3: U87 Cell Lysate



Immunohistochemistry

Image 3. Anti-SERCA1 ATPase antibody, IHC(P) IHC(P): Human Placenta Tissue

