

Datasheet for ABIN3043793
anti-ATP2A2 antibody (N-Term)

3 Images

1 Publication

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Overview

Quantity:	100 µg
Target:	ATP2A2
Binding Specificity:	AA 1-32, N-Term
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATP2A2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (ATP2A2) detection. Tested with WB, IHC-P in Human, Mouse, Rat.
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of human SERCA2 ATPase (1-32aa MENAHTKTVEEVLGHFGVNESTGLSLEQVKKL), identical to the related mouse and rat sequences.
Sequence:	MENAHTKTVE EVLGHFGVNE STGLSLEQVK KL
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>

Product Details

Characteristics:	Rabbit IgG polyclonal antibody for Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (ATP2A2) detection. Tested with WB, IHC-P in Human, Mouse, Rat. Gene Name: ATPase, Ca ⁺⁺ transporting, cardiac muscle, slow twitch 2 Protein Name: Sarcoplasmic/endoplasmic reticulum calcium ATPase 2
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Purification:	Immunogen affinity purified.
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Target Details

Target:	ATP2A2
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Alternative Name:	ATP2A2 (ATP2A2 Products)
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Background:	SERCA2, also called ATP2A2 or ATP2B, encodes one of the SERCA Ca(2+)-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. They are closely related to the plasma membrane Ca(2+)-ATPases, or PMCA. SERCA2 belongs to the large family of P-type cation pumps that couple ATP hydrolysis with cation transport across membranes. The SERCA2 gene is mapped to 12q24.11. SERCA2 was expressed in all specimens, with pronounced expression in the subnuclear aspect of basal epidermal keratinocytes. There was variable suprabasal expression. SERCA2 expression was also observed in the infundibulum and outer root sheath of hair follicles, germinative and mature cells of sebaceous glands, secretory coil and duct of eccrine glands, apocrine gland cells, and arrector pili muscle. In Darier disease skin, strong SERCA2 positivity was detected in the basal, suprabasal, and acantholytic lesional cells.
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Synonyms: AT2A2_HUMAN antibody|ATP2A2 antibody|ATP2B antibody|ATPase Ca⁺⁺ transporting cardiac muscle slow twitch 2 antibody|Calcium pump 2 antibody|Calcium-transporting ATPase sarcoplasmic reticulum type antibody|Calcium-transporting ATPase sarcoplasmic reticulum type slow twitch skeletal muscle isoform antibody|Cardiac Ca²⁺ ATPase antibody|DAR antibody|DD antibody|Endoplasmic reticulum class 1/2 Ca(2+) ATPase antibody|MGC45367 antibody|Sarcoplasmic/endoplasmic reticulum calcium ATPase 2 antibody|SERCA 2 antibody|SERCA2 antibody|serca2a antibody|slow twitch skeletal muscle isoform antibody|SR Ca(2+)-ATPase 2 antibody

Gene ID:	488
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UniProt:	P16615
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Pathways:	Myometrial Relaxation and Contraction , ER-Nucleus Signaling , Ribonucleoside Biosynthetic Process
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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 ₂ HPO ₄ , 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.

Publications

Product cited in:	Yang, Gao, Wu, Yu, Li, Meng, Li, Yan, Jin: "Epigallocatechin-3-gallate attenuates neointimal hyperplasia in a rat model of carotid artery injury by inhibition of high mobility group box 1 expression." in: Experimental and therapeutic medicine , Vol. 14, Issue 3, pp. 1975-1982, (2017) (PubMed).
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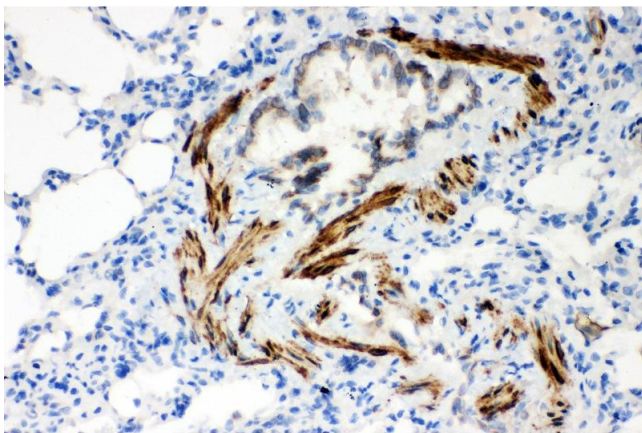
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Qin, Niu, Wang, Xu, Qiao, Gu: "Heparanase induced by advanced glycation end products (AGEs) promotes macrophage migration involving RAGE and PI3K/AKT pathway." in: **Cardiovascular diabetology**, Vol. 12, pp. 37, (2013) ([PubMed](#)).

Liu, Wang, Feng, Ma, Fu, Song, Jia, Ma: "Hypoglycemic and antioxidant activities of paeonol and its beneficial effect on diabetic encephalopathy in streptozotocin-induced diabetic rats." in: **Journal of medicinal food**, Vol. 16, Issue 7, pp. 577-86, (2013) ([PubMed](#)).

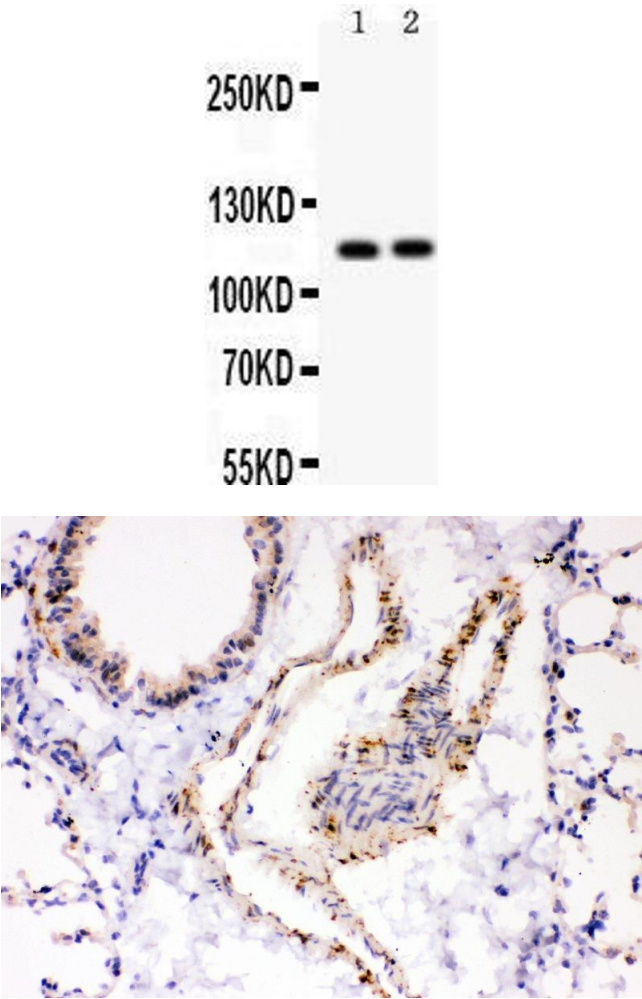
Wang, Zhang, Liu, Cui, Yang, Li, Du: "Tanshinone II A down-regulates HMGB1, RAGE, TLR4, NF-kappaB expression, ameliorates BBB permeability and endothelial cell function, and protects rat brains against focal ischemia." in: **Brain research**, Vol. 1321, pp. 143-51, (2010) ([PubMed](#)).

Validation report #300030 for Immunohistochemistry (IHC)



Immunohistochemistry

Image 1. Anti- ATP2A2 antibody,IHC(P) IHC(P): Rat Lung Tissue



Western Blotting

Image 2. Anti- ATP2A2 antibody, Western blotting All lanes:
Anti ATP2A2 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: 115KD Observed bind
size: 115KD

Immunohistochemistry

Image 3. Anti- ATP2A2 antibody,IHC(P) IHC(P): Mouse Lung
Tissue