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ATP2A2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP17013c

Specification

ATP2A2 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	P16615
Other Accession	NP_001672.1, NP_001129237.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**114757**
Antigen Region	**374-403**

ATP2A2 Antibody (Center) - Additional Information

Gene ID 488

Other Names
Sarcoplasmic/endoplasmic reticulum calcium ATPase 2, SERCA2, SR Ca(2+)-ATPase 2, Calcium pump 2, Calcium-transporting ATPase sarcoplasmic reticulum type, slow twitch skeletal muscle isoform, Endoplasmic reticulum class 1/2 Ca(2+) ATPase, ATP2A2, ATP2B

Target/Specificity
This ATP2A2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 374-403 amino acids from the Central region of human ATP2A2.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATP2A2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ATP2A2 Antibody (Center) - Protein Information

Name ATP2A2 (HGNC:812)

Synonyms ATP2B

Function This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen (PubMed:12542527, PubMed:16402920). Involved in autophagy in response to starvation. Upon interaction with VMP1 and activation, controls ER-isolation membrane contacts for autophagosome formation (PubMed:28890335). Also modulates ER contacts with lipid droplets, mitochondria and endosomes (PubMed:28890335). In coordination with FLVCR2 mediates heme-stimulated switching from mitochondrial ATP synthesis to thermogenesis (By similarity).

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:O55143}; Multi-pass membrane protein. Sarcoplasmic reticulum membrane; Multi-pass membrane protein. Note=Colocalizes with FLVCR2 at the mitochondrial-ER contact junction. {ECO:0000250|UniProtKB:O55143}

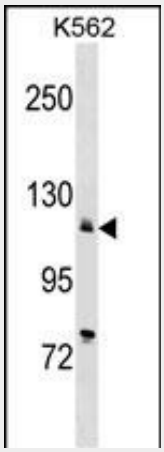
Tissue Location
Isoform 1 is widely expressed in smooth muscle and nonmuscle tissues such as in adult skin epidermis, with highest expression in liver, pancreas and lung, and intermediate expression in brain, kidney and placenta. Also expressed at lower levels in heart and skeletal muscle. Isoforms 2 and 3 are highly expressed in the heart and slow twitch skeletal muscle. Expression of isoform 3 is predominantly restricted to cardiomyocytes and in close proximity to the sarcolemma Both isoforms are mildly expressed in lung, kidney, liver, pancreas and placenta. Expression of isoform 3 is amplified during monocytic differentiation and also observed in the fetal heart

ATP2A2 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATP2A2 Antibody (Center) - Images



ATP2A2 Antibody (Center) (Cat. #AP17013c) western blot analysis in K562 cell line lysates

(35ug/lane).This demonstrates the ATP2A2 antibody detected the ATP2A2 protein (arrow).

ATP2A2 Antibody (Center) - Background

This gene encodes one of the SERCA Ca(2+)-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. This enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol into the sarcoplasmic reticulum lumen, and is involved in regulation of the contraction/relaxation cycle. Mutations in this gene cause Darier-White disease, also known as keratosis follicularis, an autosomal dominant skin disorder characterized by loss of adhesion between epidermal cells and abnormal keratinization. Alternative splicing results in multiple transcript variants encoding different isoforms.

ATP2A2 Antibody (Center) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Tuusa, J.T., et al. FEBS J. 277(13):2815-2829(2010)
Godic, A., et al. Eur J Dermatol 20(3):271-275(2010)
Godic, A., et al. J. Am. Acad. Dermatol. 62(5):819-823(2010)
Kiec-Wilk, B., et al. Prz. Lek. 67(3):151-156(2010)