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ATP2A1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4905b

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	O14983
Other Accession	P04191
Reactivity	Human
Predicted	Rabbit, Mouse, Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB25882
Calculated MW	110252
Antigen Region	974-1001

Additional Information

Gene ID	487
Other Names	Sarcoplasmic/endoplasmic reticulum calcium ATPase 1, SERCA1, SR Ca(2+)-ATPase 1, Calcium pump 1, Calcium-transporting ATPase sarcoplasmic reticulum type, fast twitch skeletal muscle isoform, Endoplasmic reticulum class 1/2 Ca(2+) ATPase, ATP2A1
Target/Specificity	This ATP2A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 974-1001 amino acids from the C-terminal region of human ATP2A1.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 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	ATP2A1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATP2A1 (HGNC:811)

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 (By similarity). Contributes to calcium sequestration involved in muscular excitation/contraction (PubMed:10914677).
Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P04191}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P04191}. Sarcoplasmic reticulum membrane {ECO:0000250|UniProtKB:P04191}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P04191}
Tissue Location	Skeletal muscle, fast twitch muscle (type II) fibers.

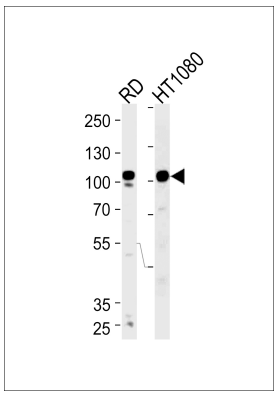
Background

ATP2A1 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 to the sarcoplasmic reticulum lumen, and is involved in muscular excitation and contraction.

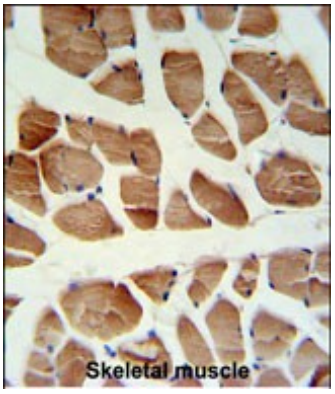
References

Salanova, M., et al. Histochem. Cell Biol. 132(4):383-394(2009)
Thorleifsson, G., et al. Nat. Genet. 41(1):18-24(2009)
Chami, M., et al. Mol. Cell 32(5):641-651(2008)

Images

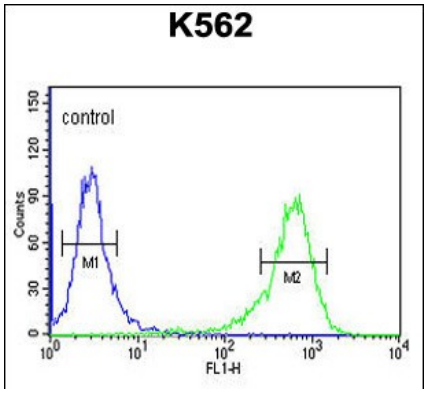


Western blot analysis of lysates from RD,HT1080 cell line (from left to right),using ATP2A1 Antibody (C-term)(Cat. #AP4905b).AP4905b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysates at 35ug per lane.



ATP2A1 Antibody (C-term) (Cat. #AP4905b) IHC analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ATP2A1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

ATP2A1 Antibody (C-term) (Cat. #AP4905b) flow cytometric analysis of K562 cells (right histogram)



compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.