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ATP2A1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant ATP2A1.
Catalog # AT1233a

Product Information

Application	WB, IHC, IF, E
Primary Accession	O14983
Other Accession	NM_173201
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	1B11
Calculated MW	110252

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	ATP2A1 (NP_775293, 522 a.a. ~ 612 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	ATP2A1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

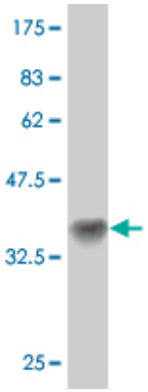
Background

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 to the sarcoplasmic reticulum lumen, and is involved in muscular excitation and contraction. Mutations in this gene cause some autosomal recessive forms of Brody disease, characterized by increasing impairment of muscular relaxation during exercise. Alternative splicing results in two transcript variants encoding different isoforms.

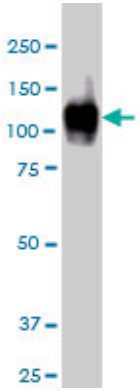
References

Atypical fast SERCA1a protein expression in slow myofibers and differential S-nitrosylation prevented by exercise during long term bed rest. Salanova M, et al. Histochem Cell Biol, 2009 Oct. PMID 19644701.Genome-wide association yields new sequence variants at seven loci that associate with measures of obesity. Thorleifsson G, et al. Nat Genet, 2009 Jan. PMID 19079260.Role of SERCA1 truncated isoform in the proapoptotic calcium transfer from ER to mitochondria during ER stress. Chami M, et al. Mol Cell, 2008 Dec 5. PMID 19061639.Training induced decrease in oxygen cost of cycling is accompanied by down-regulation of SERCA expression in human vastus lateralis muscle. Majerczak J, et al. J Physiol Pharmacol, 2008 Sep. PMID 18953100.Use of glycerol-containing media to study the intrinsic fluorescence properties of detergent-solubilized native or expressed SERCA1a. Montigny C, et al. Biochemistry, 2008 Nov 18. PMID 18947188.

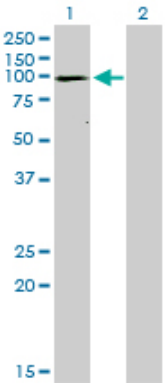
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (35.75 KDa) .



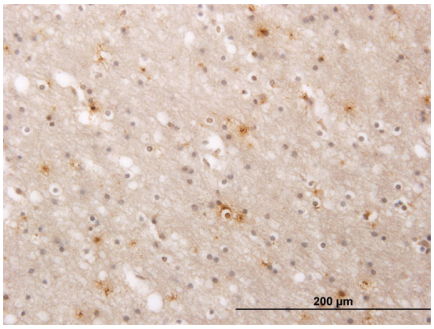
ATP2A1 monoclonal antibody (M01), clone 1B11. Western Blot analysis of ATP2A1 expression in A-431 ((Cat # AT1233a)

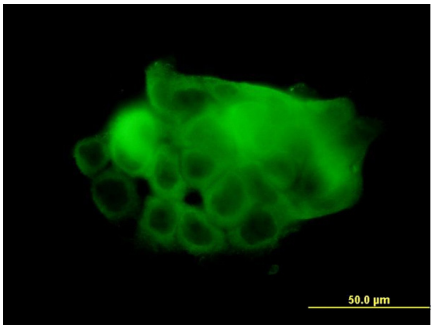


Western Blot analysis of ATP2A1 expression in transfected 293T cell line by ATP2A1 monoclonal antibody (M01), clone 1B11.

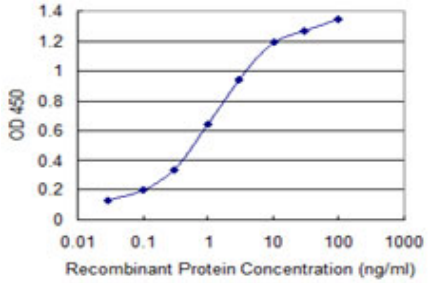
Lane 1: ATP2A1 transfected lysate(109.3 KDa).
Lane 2: Non-transfected lysate.

Immunoperoxidase of monoclonal antibody to ATP2A1 on formalin-fixed paraffin-embedded human cerebral cortex. [antibody concentration 3 ug/ml]





Immunofluorescence of monoclonal antibody to ATP2A1 on A-431 cell. [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged ATP2A1 is 0.03 ng/ml as a capture antibody.

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