10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-SERCA1 Antibody

Catalog # AP51003

Product Information

Application	WB, IHC, IF/IC
Primary Accession	O14983
Reactivity	Human, Mouse, Rat, Rabbit, Bovine
Host	Rabbit
Clonality	Polyclonal
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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human SERCA1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

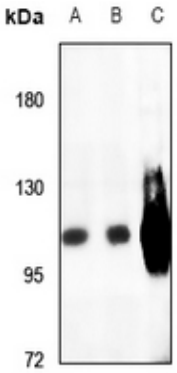
Protein Information

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.

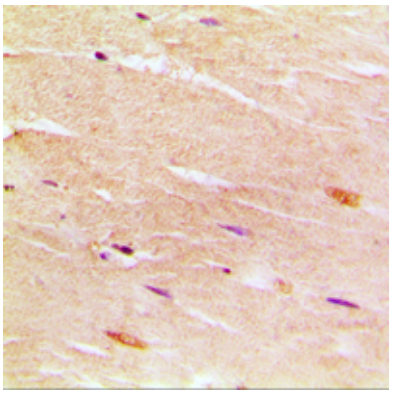
References

Zhang Y.,et al.Genomics 30:415-424(1995).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Daiho T.,et al.J. Biol. Chem. 276:32771-32778(2001).
Odermatt A.,et al.Hum. Genet. 106:482-491(2000).

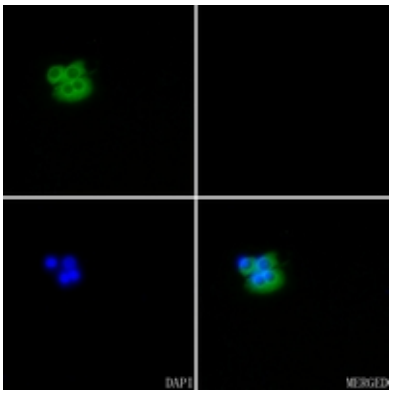
Images



Western blot analysis of SERCA1 expression in EC9706 (A), DLD (B), CT26 (C) whole cell lysates. (Predicted band size: 110 kD; Observed band size: 110 kD)



Immunohistochemical analysis of SERCA1 staining in human muscle formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of SERCA1 staining in C6 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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