

SERCA2 ATPase Monoclonal Antibody (2A7-A1)

Product Details	
Size	100 µL
Species Reactivity	Dog, Guinea pig, Human, Mouse, Pig, Rabbit, Rat
Published Species	Rat, Pig, Non-human primate, Amphibian, Rodent, Sheep, Human, Mouse, Xenopus, Dog, Rabbit, Fruit fly
Host/Isotype	Mouse / IgG2a
Class	Monoclonal
Type	Antibody
Clone	2A7-A1
Conjugate	Unconjugated
Immunogen	Purified canine cardiac sarcoplasmic reticulum vesicles.
Form	Liquid
Concentration	Conc. Not Determined
Storage buffer	ascites
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_325502

Applications	Tested Dilution	Publications
Western Blot (WB)	1:1,000	187 Publications
Immunohistochemistry (IHC)	-	6 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1 µg/mL	-
Immunohistochemistry (Frozen) (IHC (F))	1/100	1 Publication
Immunocytochemistry (ICC/IF)	1:100-1:250	10 Publications
Flow Cytometry (Flow)	1:20	-
Immunoprecipitation (IP)	Assay-dependent	5 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

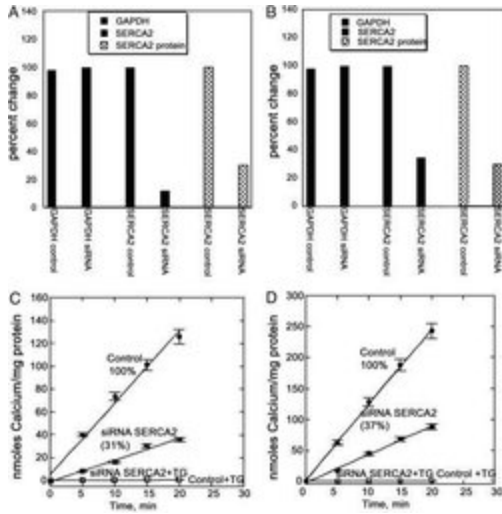
Product Specific Information

MA3-919 detects sarcoplasmic or endoplasmic reticulum calcium (SERCA) 2 ATPase from canine, porcine, human, mouse, rabbit and rat tissues. MA3-919 recognizes the SERCA2a and SERCA2b isoforms identically. However, the antibody does not recognize the skeletal muscle (SERCA1) or housekeeping isoforms (SERCA3).

MA3-919 has been successfully used in Western blot, immunocytochemistry and immunoprecipitation procedures. By Western blot, this antibody detects an ~110 kDa protein representing SERCA2 ATPase in rat cardiac tissue.

The MA3-919 antigen is purified canine cardiac sarcoplasmic reticulum vesicles.

Advanced Verification Data

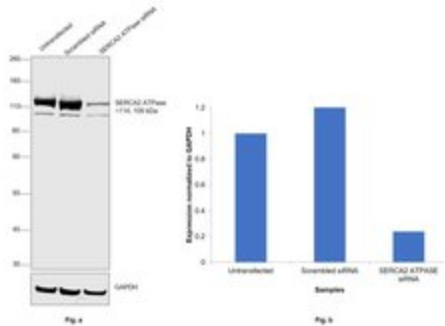


SERCA2 ATPase Antibody (MA3-919)

Immunohistochemistry staining showing TRPV1 expression in dorsal horn of spinal cord (T8-L3), dorsal root ganglia (DRG) and mesenteric arteries of rats 3 days after control or TRPV1 shRNA treatment. Scale bars, 100 μ m. Knockdown validation info.

SERCA2 ATPase Antibody (MA3-919)

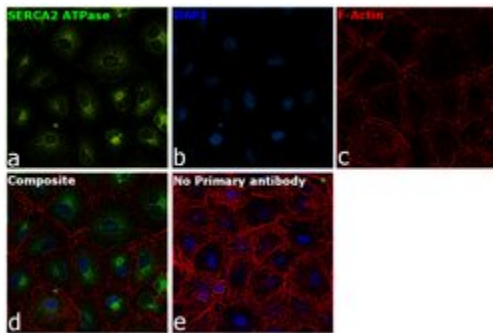
Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. A549 cells were transfected with SERCA2 ATPase siRNA and decrease in signal intensity was observed in Western Blot application using Anti-SERCA2 ATPase Monoclonal Antibody (2A7-A1) (Product # MA3-919). Knockdown validation info.



Product Images For SERCA2 ATPase Monoclonal Antibody (2A7-A1)

SERCA2 ATPase Antibody (MA3-919) in ICC/IF

Immunofluorescence analysis of SERCA2 ATPase was performed using 70 confluent log phase A549 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with SERCA2 ATPase Monoclonal Antibody (2A7-A1) (Product # MA3-919) at 1:100 dilution in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175), (1:2000 dilution), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b: Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing endoplasmic reticulum localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



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210 References

Western Blot (187)

Frontiers in cardiovascular medicine

Exercise Training Stabilizes RyR2-Dependent Ca²⁺ Release in Post-infarction Heart Failure.

"Published figure using SERCA2 ATPase monoclonal antibody (Product # MA3-919) in Western Blot"

Authors: Danielsen TK,Sadredini M,Manotheepan R,Aronsen JM,Frisk M,Hansen MH,Andressen KW,Hougen K,Levy FO,Louch WE,Sejersted OM,Sjaastad I,Stokke MK

Species
Not Applicable

Dilution
Not Cited

Year
2021

Journal of molecular medicine (Berlin, Germany)

Long-term effects of empagliflozin on excitation-contraction-coupling in human induced pluripotent stem cell cardiomyocytes.

"MA3-919 was used in Western Blotting to investigate the long-term effects (up to 2 months) of empagliflozin on excitation-contraction (EC)-coupling in human cardiomyocytes derived from induced pluripotent stem cells (iPSC-CM) in a blinded manner."

Authors: Pabel S,Reetz F,Dybkoiva N,Shomroni O,Salinas G,Mustroph J,Hammer KP,Hasenfuss G,Hamdani N,Maier LS,Streckfuss-Bömeke K,Sossalla S

Species
Human

Dilution
1:20000

Year
2020

[View more WB references on thermofisher.com](#)

Immunohistochemistry (6)

Journal of investigative medicine : the official publication of the American Federation for Clinical Research

Changes in calcium channel proteins according to magnesium sulfate administration in placentas from pregnancies with pre-eclampsia or fetal growth restriction.

"MA3-919 was used in Immunohistochemistry to evaluate the changes in plasma membrane Ca²⁺-ATPase and sarcoendoplasmic reticulum CA²⁺-ATPase according to the antepartal magnesium sulfate administration in the placentas from pregnancies with pre-eclampsia or fetal growth restriction."

Authors: Cha HH,Hwang JR,Sung JH,Choi SJ,Oh SY,Roh CR

Species
Human

Dilution
Not Cited

Year
2019

Scientific reports

The synthetic antimicrobial peptide 19-2.5 attenuates septic cardiomyopathy and prevents down-regulation of SERCA2 in polymicrobial sepsis.

"Published figure using SERCA2 ATPase monoclonal antibody (Product # MA3-919) in Immunofluorescence"

Authors: Martin L,Horst K,Chiazza F,Oggero S,Collino M,Brandenburg K,Hildebrand F,Marx G,Thiemermann C,Schuerholz T

Species
Mouse

Dilution
Not Cited

Year
2016

[View more IHC references on thermofisher.com](#)

More applications with references on thermofisher.com

IHC (F) (1)

ICC/IF (10)

IP (5)

Misc (1)

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