SERCA1 ATPase Monoclonal Antibody (IIH11)

Product Details	
Size	100 µL
Species Reactivity	Dog, Guinea pig, Human, Mouse, Rabbit, Rat
Published Species	Dog, Rabbit, Rat, Human, Mouse, Invertebrate
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	IIH11
Conjugate	Unconjugated
Immunogen	Purified rabbit skeletal muscle sarcoplasmic reticulum.
Form	Liquid
Concentration	Conc. Not Determined
Storage buffer	PBS, ascites
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_325494

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500-1:5,000	60 Publications
Immunohistochemistry (IHC)	-	16 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:20-1:200	-
Immunohistochemistry (Frozen) (IHC (F))	1:20-1:200	-
Immunocytochemistry (ICC/IF)	1:500	2 Publications

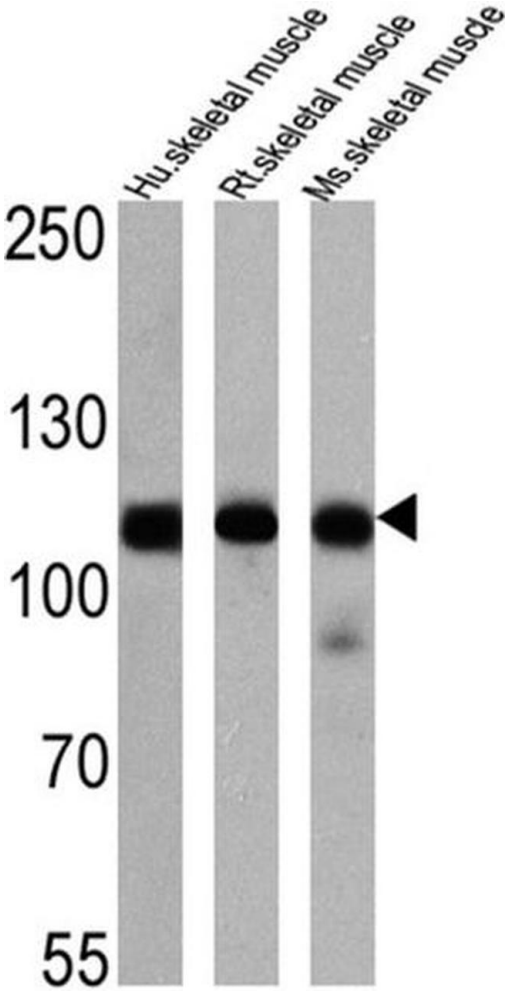
Product Specific Information

MA3-911 detects sarcoplasmic or endoplasmic reticulum calcium 1 (SERCA1) ATPase from canine, human, rabbit, rat, mouse and guinea pig tissues.

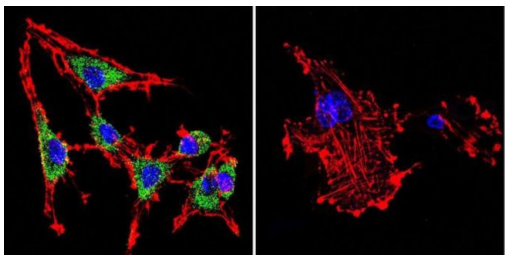
MA3-911 has been successfully used in Western blot, immunohistochemistry, and immunofluorescence procedures. By Western blot, this antibody detects an ~110 kDa protein representing SERCA1 ATPase in canine skeletal muscle extracts. Immunofluorescence staining of SERCA1 ATPase in canine skeletal muscle with MA3-911 results in strong labeling of the entire type II (fast) myofiber.

The MA3-911 antigen is purified rabbit skeletal muscle sarcoplasmic reticulum. This antibody recognizes an epitope between amino acids 199-505 of rabbit skeletal muscle ATPase, a region that is not exposed in native sarcoplasmic reticulum.

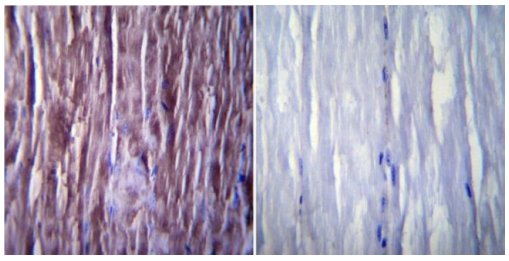
Product Images For SERCA1 ATPase Monoclonal Antibody (IIH11)



SERCA1 ATPase Antibody (MA3-911) in WB
Western blot analysis of SERCA1 ATPase was performed by loading 25 µg of human skeletal muscle (lane 1), rat skeletal muscle (lane 2) and mouse skeletal muscle (lane 3) onto an SDS polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked at 4ºC overnight. The membrane was probed with a SERCA1 ATPase monoclonal antibody (Product # MA3-911) at a dilution of 1: 2000 overnight at 4°C, washed in TBST, and probed with an HRP-conjugated secondary antibody for 1 hr at room temperature in the dark. Chemiluminescent detection was performed using Pierce ECL Plus Western Blotting Substrate (Product # 32132). Images were taken at an exposure time of 4 min (lanes 1 and 2) and 1 min (lane 3). Results show a band at ~110 kDa.



SERCA1 ATPase Antibody (MA3-911) in ICC/IF
Immunofluorescent analysis of SERCA1 ATPase using Anti-SERCA1 ATPase Monoclonal Antibody (IIH11) (Product # MA3-911) shows staining in C6 Cells. SERCA1 ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or an antibody recognizing SERCA1 ATPase (Product # MA3-911) at a dilution of 1: 200 over night at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody (Product # 35503, Goat Anti-Mouse). Images were taken at 60X magnification.



SERCA1 ATPase Antibody (MA3-911) in IHC (P)
Immunohistochemistry was performed on normal biopsies of deparaffinized Mouse skeletal muscle tissue. To expose target proteins, heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer, microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:200 with a mouse monoclonal antibody recognizing SERCA1 ATPase (Product # MA3-911) or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP, followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.

View more figures on thermofisher.com

78 References

Western Blot (60)

FEBS letters

Neuronatin promotes SERCA uncoupling and its expression is altered in skeletal muscles of high-fat diet-fed mice.

"Published figure using SERCA1 ATPase monoclonal antibody (Product # MA3-911) in Western Blot"

Authors: Braun JL,Teng ACT,Geromella MS,Ryan CR,Fenech RK,MacPherson REK,Gramolini AO,Fajardo VA

Year 2021

Species Human

Dilution 1:5000

Frontiers in physiology

Electrical Stimulation Prevents Preferential Skeletal Muscle Myosin Loss in Steroid-Denervation Rats.

"Published figure using SERCA1 ATPase monoclonal antibody (Product # MA3-911) in Western Blot"

Authors: Yamada T,Himori K,Tatebayashi D,Yamada R,Ashida Y,Imai T,Akatsuka M,Masuda Y,Kanzaki K,Watanabe D, Wada M,Westerblad H,Lanner JT

Year 2020

Species Rat

View more WB references on thermofisher.com

Immunohistochemistry (16)

Acta neuropathologica communications

Nebulin nemaline myopathy recapitulated in a compound heterozygous mouse model with both a missense and a nonsense mutation in Neb.

"MA3-911 was used in Immunohistochemistry to characterise a mouse strain with compound heterozygous Neb mutations; one missense (p.Tyr2303His), affecting a conserved actin-binding site and one nonsense mutation (p. Tyr935*), introducing a premature stop codon early in the protein."

Authors: Laitila JM,McNamara EL,Wingate CD,Goullee H,Ross JA,Taylor RL,van der Pijl R,Griffiths LM,Harries R, Ravenscroft G,Clayton JS,Sewry C,Lawlor MW,Ottenheijm CAC,Bakker AJ,Ochala J,Laing NG,Wallgren-Pettersson C, Pelin K,Nowak KJ

Year 2020

Species Mouse

Dilution 1:1000

International journal of experimental pathology

Primary over-expression of APP in muscle does not lead to the development of inclusion body myositis in a new lineage of the MCK-APP transgenic mouse.

"Published figure using SERCA1 ATPase monoclonal antibody (Product # MA3-911) in Immunohistochemistry"

Authors: Luo YB,Johnsen RD,Griffiths L,Needham M,Fabian VA,Fletcher S,Wilton SD,Mastaglia FL

Year 2013

Species Mouse

Dilution 1:15

View more IHC references on thermofisher.com

More applications with references on thermofisher.com

ICC/IF (2)