

SERCA2 ATPase Monoclonal Antibody (IID8)

Product Details	
Size	100 µL
Species Reactivity	Bovine, Dog, Human, Mouse, Pig, Rabbit, Rat
Published Species	Rat, Pig, Virus, Non-human primate, Amphibian, Hamster, Sheep, Zebrafish, Human, Mouse, Guinea pig, Dog, Rabbit
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	IID8
Conjugate	Unconjugated
Immunogen	Purified canine cardiac sarcoplasmic reticulum.
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_2227681

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500-1:5,000	81 Publications
Immunohistochemistry (IHC)	-	16 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1 µg/mL	-
Immunohistochemistry (Frozen) (IHC (F))	1:500	1 Publication
Immunocytochemistry (ICC/IF)	5 µg/mL	29 Publications
Flow Cytometry (Flow)	1 µg / 10 ⁶ cells	-
ELISA (ELISA)	-	1 Publication
Immunoprecipitation (IP)	-	3 Publications
ChIP assay (ChIP)	-	1 Publication
Immunomicroscopy (IM)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

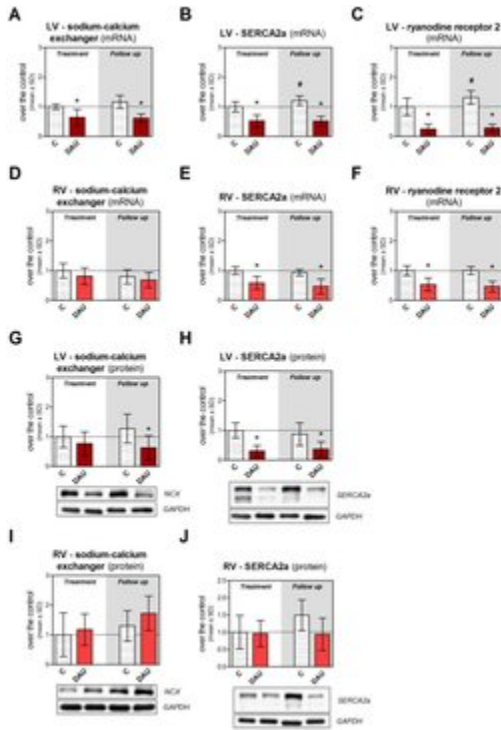
MA3-910 detects sarcoplasmic or endoplasmic reticulum calcium 2 (SERCA2) ATPase from bovine, canine, human, pig, rabbit and rat tissues. This antibody does not detect frog SERCA2 ATPase (J. Biol. Chem., Feb 2001; 276: 3911 - 3919). MA3-910 detects SERCA2 ATPase and does not discriminate between the two isoforms.

MA3-910 has been successfully used in Western blot, immunofluorescence, immunocytochemistry, and immunohistochemistry. By Western blot, this antibody detects an ~110 kDa protein representing SERCA2 ATPase from canine skeletal muscle triad preparations. Immunofluorescence staining of SECRA2 ATPase in rabbit skeletal muscle with MA3-910 results in strong labeling of the entire type I (slow) myofiber consistent with sarcoplasmic reticulum localization.

MA3-910 is not recommended for Western blot detection of rat SERCA2.

The MA3-910 antigen is purified canine cardiac sarcoplasmic reticulum.

Advanced Verification Data



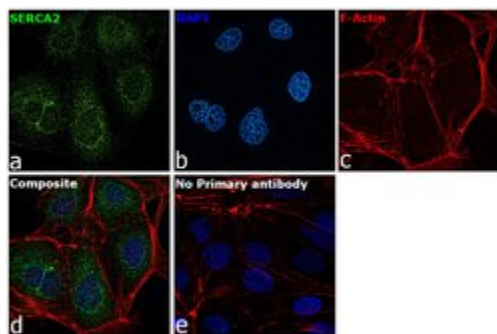
SERCA2 ATPase Antibody (MA3-910)

Figure 7 Changes in expression of calcium handling proteins in chronic anthracycline cardiotoxicity and post-treatment follow up. Gene expression of sodium-calcium exchanger (A , D), SERCA2a (B , E) and ryanodine receptor 2 (C , F) in the left and right ventricular myocardium, respectively. Western blot analysis of protein levels of sodium-calcium exchanger (G , I) and SERCA2a (H , J) in the left and right ventricular myocardium, respectively. Statistical significances (One Way ANOVA, $P < 0.05$) within each study period (*) or between the treatment and post-treatment period (#). C - control group, DAU - daunorubicin group. Cell treatment validation info.

Product Images For SERCA2 ATPase Monoclonal Antibody (IID8)

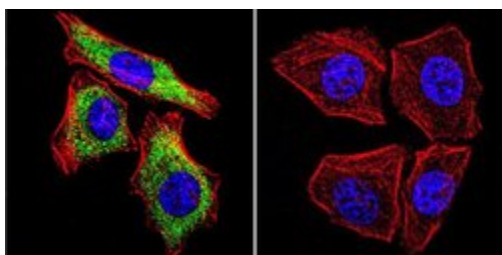
SERCA2 ATPase Antibody (MA3-910) in ICC/IF

Immunofluorescence analysis of SERCA2 was performed using 70% confluent log phase MDCK 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 1 hour at room temperature. The cells were labeled with SERCA2 ATPase Monoclonal Antibody (Product # MA3-910) at 5 µg/mL 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 (Product # A28175) at a dilution of 1:2000 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). Panel d represents the merged image showing Cytoplasmic (mostly ER) localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



SERCA2 ATPase Antibody (MA3-910) in ICC/IF

Immunofluorescent analysis of SERCA2 ATPase using SERCA2 ATPase Monoclonal antibody (IID8) (Product # MA3-910) shows staining in U251 glioma cells. SERCA2 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 SERCA2 ATPase (Product # MA3-910) at a dilution of 1:100-1:200 over night at 4 °C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody (Product # 35552 for GAR, Product # 35503 for GAM). Images were taken at 60X magnification.



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Western Blot (81)

Clinical epigenetics

Multi-omics integration identifies key upstream regulators of pathomechanisms in hypertrophic cardiomyopathy due to truncating MYBPC3 mutations.

"Published figure using SERCA2 ATPase monoclonal antibody (Product # MA3-910) in Immunocytochemistry"
 Authors: Pei J,Schuldt M,Nagyova E,Gu Z,El Bouhaddani S,Yiangou L,Jansen M,Calis JJA,Dorsch LM,Blok CS,van den Dungen NAM,Lansu N,Boukens BJ,Efimov IR,Michels M,Verhaar MC,de Weger R,Vink A,van Steenbeek FG,Baas AF,Davis RP,Uh HW,Kuster DWD,Cheng C,Mokry M,van der Velden J,Asselbergs FW,Harakalova M

Species
Not Applicable

Dilution
Not Cited

Year
2021

Journal of Alzheimer's disease : JAD

Localization and Processing of the Amyloid- Protein Precursor in Mitochondria-Associated Membranes.

"MA3910 was used in western blot to investigate the localization, processing, and protein interactome of the amyloid-beta protein precursor and its proteolytic products in mitochondria-associated membranes"

Authors: DeI Prete D,Suski JM,Oulès B,Debayle D,Gay AS,Lacas-Gervais S,Bussiere R,Bauer C,Pinton P,Paterlini-Bréchet P,Wieckowski MR,Checler F,Chami M

Species
Human

Dilution
Not Cited

Year
2018

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

Immunohistochemistry (16)

Frontiers in neuroanatomy

Calsequestrins New Calcium Store Markers of Adult Zebrafish Cerebellum and Optic Tectum.

"MA3-910 was used in Immunohistochemistry to identify new endoplasmic reticulum (ER) calcium store markers in zebrafish adult brain with emphasis on cerebellum and optic tectum."

Authors: Furlan S,Campione M,Murgia M,Mosole S,Argenton F,Volpe P,Nori A

Species
Zebrafish

Dilution
Not Cited

Year
2020

The Journal of biological chemistry

Regulation of sarcoplasmic reticulum Ca²⁺ ATPase 2 (SERCA2) activity by phosphodiesterase 3A (PDE3A) in human myocardium: phosphorylation-dependent interaction of PDE3A1 with SERCA2.

"Published figure using SERCA2 ATPase monoclonal antibody (Product # MA3-910) in Immunofluorescence"

Authors: Ahmad F,Shen W,Vandeput F,Szabo-Fresnais N,Krall J,Degerman E,Goetz F,Klussmann E,Movsesian M,Manganiello V

Species
Human
Not Applicable

Dilution
Not Cited
Not Cited

Year
2015

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

More applications with references on thermofisher.com

IHC (F) (1)

ICC/IF (29)

ELISA (1)

IP (3)

ChIP (1)

IM (1)

Misc (1)

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