ATP1A3 Monoclonal Antibody (XVIF9-G10)

Product Details	
Size	100 µg
Species Reactivity	Bovine, Dog, Guinea pig, Human, Mouse, Non-human primate, Sheep, Rabbit, Rat
Published Species	Rat, Pig, Non-human primate, Amphibian, Shark, Gerbil, Bovine, Human, Mouse
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	XVIF9-G10
Conjugate	Unconjugated
Immunogen	Canine cardiac microsomes.
Form	Liquid
Concentration	1 mg/mL
Purification	Protein A
Storage buffer	0.02M potassium phosphate, pH 7.2, with 0.15M NaCl
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_2274447

Applications	Tested Dilution	Publications
Western Blot (WB)	1 µg/mL	62 Publications
Immunohistochemistry (IHC)	-	17 Publications
Immunohistochemistry (Frozen) (IHC (F))	3 µg/mL	1 Publication
Immunocytochemistry (ICC/IF)	5 µg/mL	12 Publications
Flow Cytometry (Flow)	1 µg / 10^6 cells	-
Miscellaneous PubMed (Misc)	-	2 Publications

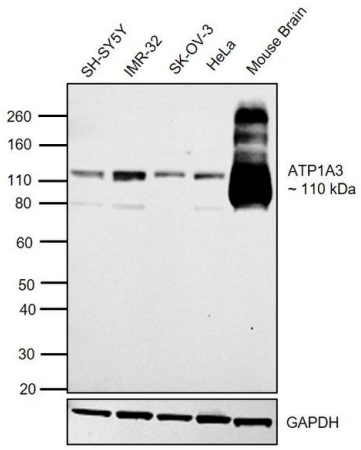
Product Specific Information

MA3-915 detects sodium/potassium ATPase from human, monkey, bovine, sheep, canine, rabbit, guinea pig, mouse and rat tissue. This antibody is specific for the alpha-3 subunit.

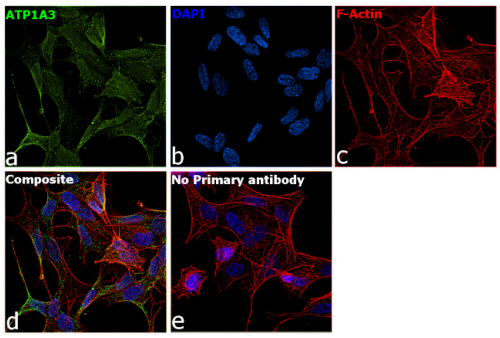
MA3-915 has been successfully used in Western blot and immunohistochemical procedures. By Western blot, this antibody detects an ~110 kDa protein representing the alpha-3 subunit of the sodium/potassium ATPase from canine skeletal muscle extract. Immunohistochemical staining of sodium/potassium ATPase in rat retina with MA3-915 yields a pattern consistent with plasma membrane localization.

The MA3-915 antigen is canine cardiac microsomes.

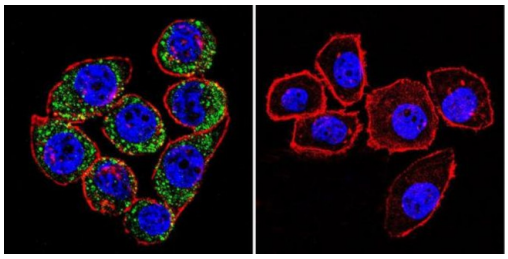
Product Images For ATP1A3 Monoclonal Antibody (XVIF9-G10)



ATP1A3 Antibody (MA3-915) in WB
Western blot was performed using Anti-ATP1A3 Monoclonal Antibody (XVIF9-G10) (Product # MA3-915) and a 110 kDa band corresponding to ATP1A3 was observed across cell lines and tissue tested. Whole cell extracts (30 µg lysate) of SH-SY5Y (Lane 1), IMR-32 (Lane 2), SK-O-V3 (Lane 3), HeLa (Lane 4) and Mouse Brain (Lane 5) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23002) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1 µg /mL) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1: 4000) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



ATP1A3 Antibody (MA3-915) in ICC/IF
Immunofluorescence analysis of ATP1A3 was performed using SH-SY5Y 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 ATP1A3 Monoclonal Antibody (XVIF9-G10) (Product # MA3-915) at 5 µg/mL in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32723), (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, 1:300). Panel d represents the merged image showing membrane localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



ATP1A3 Antibody (MA3-915) in ICC/IF
Immunofluorescent analysis of Sodiµm/Potassium ATPase alpha-3 using Sodiµm /Potassium ATPase alpha-3 Monoclonal antibody (XVIF9-G10) (Product # MA3-915) shows staining in U251 glioma cells. Sodiµm/Potassium ATPase alpha-3 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 Sodiµm/Potassium ATPase alpha-3 (Product # MA3-915) at a dilution of 1:20 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.

View more figures on thermofisher.com

94 References

Western Blot (62)

Medicine international

Na+/K+ATPase subunit 3 expression is associated with the efficacy of digitoxin treatment in pancreatic cancer cells.

"MA3-915 was used in Western Blotting to investigate the effects of digitoxin in relation to the expression of the subunits ATP1A1 and ATP1A3 using three pancreatic cancer cell lines AsPC-1, Panc-1 and CFPAC-1."

Authors: Lindholm H,Ejeskär K,Szekeres F

Year 2023

Species Human

Dilution 1:1000

PloS one

The cellular prion protein interacts with and promotes the activity of Na, K-ATPases.

"Published figure using ATP1A3 monoclonal antibody (Product # MA3-915) in Western Blot"

Authors: Williams D,Mehrabian M,Arshad H,Eid S,Sackmann C,Zhao W,Wang X,Ghodrati F,Verkuyl CE,Watts JC, Schmitt-Ulms G

Year 2021

View more WB references on thermofisher.com

Immunohistochemistry (17)

Developmental neurobiology

Neuronal development in the cochlea of a nonhuman primate model, the common marmoset.

"MA3-915 was used in Immunohistochemistry-immunofluorescence to reveal similarities and differences between previously reported rodent models and a marmoset animal model."

Authors: Hosoya M,Fujioka M,Murayama AY,Ozawa H,Okano H,Ogawa K

Year 2021

Species Non-human primate

Journal of clinical medicine

Evaluation of the Efficacy of Dexamethasone-Eluting Electrode Array on the Post-Implant Cochlear Fibrotic Reaction by Three-Dimensional Immunofluorescence Analysis in Mongolian Gerbil Cochlea.

"MA3-915 was used in Immunohistochemistry to propose that the cochlear implant used as a corticosteroid delivery system appears to be an encouraging device for the protection of the inner ear against fibrosis induced by implantation."

Authors: Toulemonde P,Risoud M,Lemesre PE,Beck C,Wattelet J,Tardivel M,Siepmann J,Vincent C

Year 2021

Species Gerbil

Dilution 1:400

View more IHC references on thermofisher.com

More applications with references on thermofisher.com

IHC (F) (1) **ICC/IF (12)** **Misc (2)**