

# ZO-1 Monoclonal Antibody (ZO1-1A12)

## Product Details

Size	100 µg
Species Reactivity	Dog, Human, Mouse, Rhesus monkey
Published Species	Tag, Pig, Rat, Non-human primate, Virus, Bovine, Sheep, Hamster, Zebrafish, Fish, Mouse, Human, Goat, Chicken, Xenopus, Guinea pig, Dog, Rabbit
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	ZO1-1A12
Conjugate	Unconjugated
Immunogen	Human recombinant ZO-1 fusion protein encompassing amino acids 334-634
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage conditions	-20°C
RRID	AB_2533147

Applications	Tested Dilution	Publications
Western Blot (WB)	1-2 µg/mL	107 Publications
Immunohistochemistry (IHC)	-	171 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	13 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	6 Publications
Immunohistochemistry (Frozen) (IHC (F))	1:500	20 Publications
Immunohistochemistry - Free Floating (IHC (Free))	-	1 Publication
Immunocytochemistry (ICC/IF)	5-10 µg/mL	229 Publications
Flow Cytometry (Flow)	-	3 Publications
ELISA (ELISA)	0.1-1.0 µg/mL	-
Immunoprecipitation (IP)	-	5 Publications
Miscellaneous PubMed (Misc)	-	48 Publications

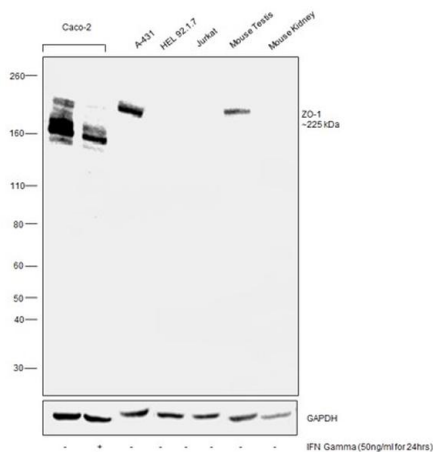
## Product Specific Information

33-9100 has been successfully used in ELISA, Immunofluorescence and Western Blot analysis of ZO-1.

Product Images For ZO-1 Monoclonal Antibody (ZO1-1A12)

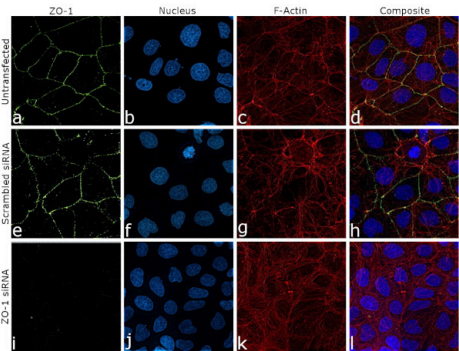
ZO-1 Antibody (33-9100) in WB

Western blot was performed using Anti-ZO-1 Monoclonal Antibody (ZO1-1A12) (Product # 33-9100) and a 225 kDa band corresponding to ZO-1 was observed across along with uncharacterized band. Membrane enriched extracts (40 µg lysate) of Caco-2 (Lane 1), Caco-2 treated with IFN Gamma (50 ng/mL for 24hrs) (Lane 2), A-431 (Lane 3), HEL 92.1.7 (Lane 4) and Jurkat (Lane 5). Tissue extracts of Mouse Testis (Lane 6) and Mouse Kidney (Lane 7) were electrophoresed using NuPAGE™ 3-8% Tris-Acetate Protein Gel (Product # EA0378BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001) after equilibrating with ethanol .Relative Expression of ZO-1 was observed to be high in Caco-2 and A-431 in comparison to low or negative in Jurkat and HEL 92.1.7, the downregulation of protein was also observed with IFN Gamma treatment, The blot was probed with the primary antibody (2 µg/mL) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



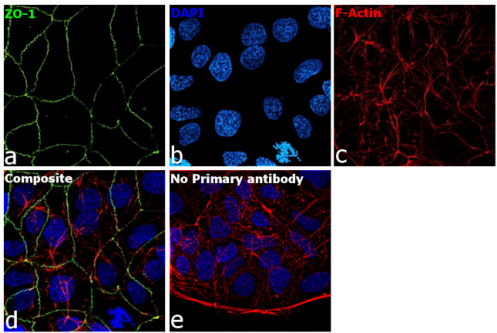
ZO-1 Antibody (33-9100)

Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. Caco-2 cells were transfected with ZO-1 siRNA and decrease in signal intensity was observed in ICC application using Anti-ZO-1 Monoclonal Antibody (ZO1-1A12) (Product # 33-9100). {KD}



ZO-1 Antibody (33-9100) in ICC/IF

Immunofluorescence analysis of ZO-1 was performed using 90% confluent log phase Caco-2 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 ZO-1 Monoclonal Antibody (ZO1-1A12) (Product # 33-9100) at 5 µg/mL in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Donkey anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32766), (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 dilution). Panel d represents the merged image showing Junctional localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



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Western Blot (107)

Frontiers in oncology	Year 2023
<b>RhoC Modulates Cell Junctions and Type I Interferon Response in Aggressive Breast Cancers.</b>	Species Human
"33-9100 was used in Immunohistochemistry, Western Blot to study how RhoA- and RhoC-GTPase influence the cell-cell junctions in aggressive breast cancers."	Dilution 1:200
Authors: Abraham HG,Ulantz PJ,Goo L,Yates JA,Little AC,Bao L,Wu Z,Merajver SD	
Frontiers in cellular neuroscience	Year 2023
<b>Brain blood vessel autoantibodies in patients with NMDA and GABA<sub>A</sub> receptor encephalitis: identification of unconventional Myosin-X as target antigen.</b>	Species Human
"33-9100 was used in Western Blotting to conclude that autoantibodies to blood vessels occur in autoimmune encephalitis patients and might contribute to a disruption of the blood-brain barrier thereby suggesting a potential pathophysiological relevance of these antibodies."	
Authors: Li LY,Kreye J,Burek M,Cordero-Gomez C,Barthel PC,Sánchez-Sendín E,Kornau HC,Schmitz D,Scharf M,Meybohm P,Reincke SM,Prüss H,Höltje M	

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Immunohistochemistry (171)

Frontiers in oncology	Year 2023
<b>RhoC Modulates Cell Junctions and Type I Interferon Response in Aggressive Breast Cancers.</b>	Species Human
"33-9100 was used in Immunohistochemistry, Western Blot to study how RhoA- and RhoC-GTPase influence the cell-cell junctions in aggressive breast cancers."	Dilution 1:200
Authors: Abraham HG,Ulantz PJ,Goo L,Yates JA,Little AC,Bao L,Wu Z,Merajver SD	
microPublication biology	Year 2023
<b>The <i>disconnect2</i> mutation disrupts the <i>tjp1b</i> gene that is required for electrical synapse formation.</b>	Species Zebrafish
"33-9100 was used in Immunohistochemistry to investigate electrical synapse formation in vivo we used forward genetics to disrupt genes affecting Mauthner cell electrical synapses in larval zebrafish."	Dilution 1:350
Authors: Michel JC,Lasseigne AM,Marsh AJ,Miller AC	

View more IHC references on thermofisher.cn

More applications with references on thermofisher.cn

- IHC (P) (13)
- IHC (PFA) (6)
- IHC (F) (20)
- IHC (Free) (1)
- ICC/IF (229)
- Flow (3)
- IP (5)
- Misc (48)

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