

ZO-1 Monoclonal Antibody (R26.4C), eBioscience™

Product Details

Size	100 µg
Species Reactivity	Dog, Mouse, Rat
Published Species	Mouse, Xenopus
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	R26.4C
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_2573026

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-Dependent	-
Immunohistochemistry (IHC)	-	2 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	10 µg/mL	-
Immunocytochemistry (ICC/IF)	1:100	2 Publications

Product Specific Information

Description: The monoclonal antibody R26.4C recognizes the tight junction protein 1, ZO-1 (zona occludens) of rat, mouse, canine, and porcine. ZO-1 is a member of the MAGUK family of tight junction associated scaffolding proteins, each containing a PDZ, SH3 and guanylate kinase-like (GUK) domain. ZO-1 is an integral member of the tight junction complex which forms a barrier to paracellular movement of substances, separating apical and basolateral fluids in relation to the epithelial cell layer. ZO-1 forms complexes with family members ZO-2, ZO-3, as well as occludin, cingulin, claudin-1-8, actin, alpha-catenin, the Ras-effector molecule AF-6, ZONAB, Apg-2, and the junctional adhesion molecules (JAM)-A-C. ZO-1 is thought to anchor the actin cytoskeleton to the tight junction. ZO-1 and ZO-2 have been shown to regulate cell cycle and proliferation with recent evidence highlighting the down-regulation of ZO-1 and ZO-2 with cancer progression.

Applications Reported: This R26.4C antibody has been reported for use in western blotting, immunohistochemical staining of frozen tissue sections, microscopy, and immunocytochemistry.

Applications Tested: This R26.4C antibody has been tested by immunocytochemistry of formaldehyde-fixed and permeabilized cells and by immunohistochemistry of frozen mouse tissue and can be used at less than or equal to 10 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

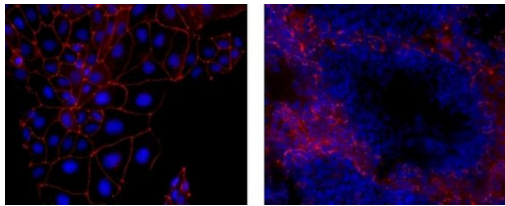
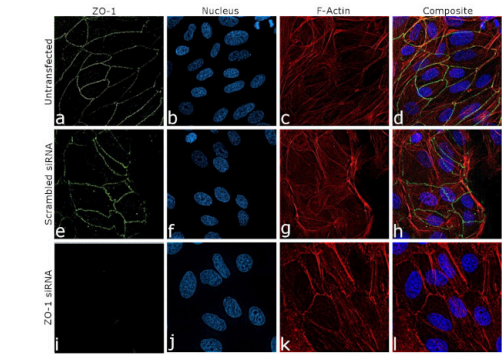
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For ZO-1 Monoclonal Antibody (R26.4C), eBioscience™

ZO-1 Antibody (14-9776-82)

Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. MDCK cells were transfected with ZO-1 siRNA and decrease in signal intensity was observed in ICC application using Anti-ZO-1 Monoclonal Antibody (R26.4C), eBioscience™ (Product # 14-9776-80). {KD}

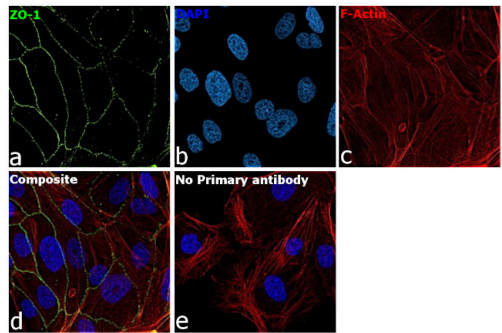


ZO-1 Antibody (14-9776-82) in ICC/IF

Immunocytochemistry of formaldehyde-fixed, permeabilized MDCK cells stained with 10 µg/mL of Anti-ZO-1 Purified, followed by 10 µg/mL of Anti-Rat IgG TRITC (left). Immunohistochemistry of acetone-fixed mouse testes stained with 10 µg/mL of Anti-ZO-1 Purified, followed by 10 µg/mL of Anti-Rat IgG TRITC (right). Nuclei are stained with DAPI.

ZO-1 Antibody (14-9776-82) in ICC/IF

Immunofluorescence analysis of ZO-1 was performed using 90% 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 45 minutes at room temperature. The cells were labeled with ZO-1 Monoclonal Antibody (R26.4C), eBioscience™ (Product # 14-9776-80) at 1:100 dilution in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 488 (Product # A11006), (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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Immunohistochemistry (2)

<p>Reproduction (Cambridge, England)</p> <p>Scribble promotes alveologenesis in the pregnant mammary gland for milk production.</p> <p>"14-9776 was used in Immunohistochemistry-immunofluorescence to study the role of scribble in mammary gland alveogenesis in mice."</p> <p>Authors: Aikawa S,Yuan J,Dewar A,Sun X,Dey SK</p>	<p>Year 2020</p> <p>Species Mouse</p> <p>Dilution 1:300</p>
<p>Journal of neuroinflammation</p> <p>Long-term characterization of activated microglia/macrophages facilitating the development of experimental brain metastasis through intravital microscopic imaging.</p> <p>"Published figure using ZO-1 monoclonal antibody (Product # 14-9776-82) in Immunohistochemistry"</p> <p>Authors: Qiao S,Qian Y,Xu G,Luo Q,Zhang Z</p>	<p>Year 2019</p>

Immunohistochemistry (PFA fixed) (1)

<p>Nature cell biology</p> <p>Massive centriole production can occur in the absence of deuterosomes in multiciliated cells.</p> <p>"14-9776-80 was used in Immunohistochemistry (PFA fixed) to show that the centriole number is set independently of their nucleation platforms and suggest that massive centriole production in multiciliated cells (MCCs) is a robust process that can self-organize."</p> <p>Authors: Mercey O,Levine MS,LoMastro GM,Rostaing P,Brotslaw E,Gomez V,Kumar A,Spassky N,Mitchell BJ,Meunier A,Holland AJ</p>	<p>Year 2019</p> <p>Species Xenopus</p> <p>Dilution 1:1000</p>
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Immunocytochemistry (2)

<p>Theranostics</p> <p>Soluble CD146, a cerebrospinal fluid marker for neuroinflammation, promotes blood-brain barrier dysfunction.</p> <p>"Published figure using ZO-1 monoclonal antibody (Product # 14-9776-82) in Immunocytochemistry"</p> <p>Authors: Wang D,Duan H,Feng J,Xiang J,Feng L,Liu D,Chen X,Jing L,Liu Z,Zhang D,Hao H,Yan X</p>	<p>Year 2021</p>
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