

ZO-1 Recombinant Monoclonal Mouse Antibody (rZO1-1A12) – Biotium Choice



ZO-1 (clone rZO1-1A12) is a recombinant mouse monoclonal antibody that recognizes human recombinant Zonula occludens protein 1 (ZO-1) fusion protein (amino acids 334-634). The antibody belongs to the Biotium Choice list of select antibodies that have been validated in-house for optimal performance.

Product Description

ZO-1 is a recombinant mouse monoclonal antibody that recognizes human recombinant Zonula occludens protein 1 (ZO-1) fusion protein (amino acids 334-634). This antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for fluorescence microscopy. The antibody is available conjugated to a selection of CF® Dyes. They are supplied in PBS, 2 mg/mL rBSA, and 0.05% sodium azide.

- Available in 7 bright and photostable CF® Dyes, including [near-IR CF®740](#)
- Suitable for flow cytometry, immunohistochemistry, immunofluorescence, and western

ZO-1 forms complexes with ZO-2 or ZO-3 and interacts with claudin, occludin, and F-actin at tight junctions, linking them to the actin cytoskeleton. ZO-1 expression is reduced in many breast cancer cell lines, while ZO-2 and ZO-3 are broadly expressed in epithelial tight junctions. Unlike ZO-1, which is also found at cardiac myocyte junctions, ZO-2 is absent from nonepithelial tissues. Located on the cytoplasmic surface of intercellular junctions, ZO-1 may also mediate signal transduction. The ZO-1 gene produces two isoforms, and its dysfunction is linked to Celiac Disease and Congenital Nephrotic Syndrome.

Discover Sharper Signals and Unmatched Panel Flexibility with Biotium Choice Antibodies – Powered by CF® Dyes

Biotium Choice antibodies are carefully curated and validated in-house to offer exceptional signal-to-noise. Labeled with our advanced CF® Dyes, they are our top-recommended antibodies for immunofluorescence and other applications.

Biotium Choice Antibody Features

- Robust and validated clones against common targets
- Developed and optimized for flow cytometry and other applications
- Conjugated to bright, photostable [CF® Dye](#) for superior signal and clarity
- New antibody clones and dye conjugates continuously in development

[View our full catalog of Biotium Choice antibodies](#)

Product attributes

Antibody Number	P034
Antibody reactivity (target)	ZO-1
Biotium Choice Antibody	Primary
Antibody type	Biotium Choice Primary
Host species	Mouse
Clonality	Recombinant Monoclonal
Clone	rZO1-1A12
Isotype	IgG1
Molecular weight	195 kDa (predicted), 230 kDa (observed)
Synonyms	Tight junction protein ZO-1; zona occludens 1; Zona occludens protein 1; zonula occludens 1 protein; Zonula occludens protein 1
Human gene symbol	TJP1
Entrez gene ID	7082
SwissProt	Q07157
Immunogen	Human recombinant ZO-1 fusion protein (amino acids 334-634)
Antibody target cellular localization	Cell junctions
Verified antibody applications	IF (verified), IHC (FFPE) (verified), IHC (frozen) (verified)
Species reactivity	Broad reactivity, Dog, Human, Mouse, Non-human primate, Rat
Expected antibody applications	Flow (intracellular) (published for clone), IP (published for clone), WB (published for clone)
Antibody application notes	Immunofluorescence: 1-5 ug/mL; Optimal concentration to be determined by end-user
Positive control	MCF7 cells, Caco-2 cells, MDCK cells, brain or retina
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: PBS/2 mg/mL rBSA/0.05% azide
Antibody research areas	Cell adhesion
Cell/tissue expression	Epithelial cells, Eye, Intestine, Kidney, Microvascular endothelial cells, Testis
Product origin	Recombinant BSA produced in Chinese hamster ovary cells, Recombinant mouse IgG produced in Chinese Hamster Ovary (CHO) cell line
Filter by antibody application	IHC, FFPE (published), Flow (intracellular) (published for clone), IP (published for clone), WB (published for clone), IF (verified), IHC, frozen (verified)

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Conjugation	Ex/Em	Conc.	Size	Catalog No.	Dye Features
CF®488A	490/516 nm	100 ug/mL	500 uL	P034-488A-500UL	CF®488A Features
CF®568	562/584 nm	100 ug/mL	500 uL	P034-568-500UL	CF®568 Features
CF®594	593/615 nm	100 ug/mL	500 uL	P034-594-500UL	CF®594 Features
CF®640R	642/663 nm	100 ug/mL	500 uL	P034-640R-500UL	CF®640R Features
CF®647	652/668 nm	100 ug/mL	500 uL	P034-647-500UL	CF®647 Features
CF®680R	680/701 nm	100 ug/mL	500 uL	P034-680R-500UL	CF®680R Features
CF®740	742/767 nm	100 ug/mL	500 uL	P034-740-500UL	CF®740 Features

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