Occludin Monoclonal Antibody (OC-3F10), Alexa Fluor™ 488

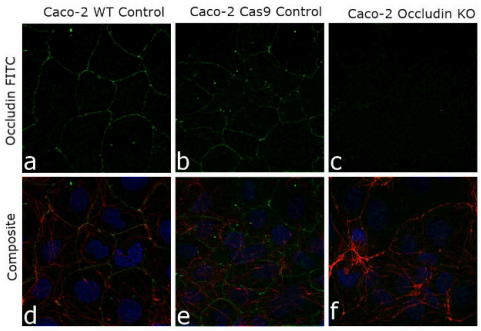
Product Details	
Size	100 µg
Species Reactivity	Dog, Human, Mouse, Rat
Published Species	Dog, Bovine, Mouse, Human
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	OC-3F10
Conjugate	Alexa Fluor™ 488
Excitation/Emission Max	499/520 nm
Immunogen	GST-fusion protein consisting of the C-terminal region (~150 aa) of human occludin.
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4, with 4.0mg/mL BSA
Contains	0.1% sodium azide
Storage conditions	4° C, store in dark
RRID	AB_2532185

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-dependent	2 Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	2 Publications
Immunohistochemistry - Free Floating (IHC (Free))	-	1 Publication
Immunocytochemistry (ICC/IF)	1-5 µg/mL	9 Publications
ELISA (ELISA)	Assay-dependent	-

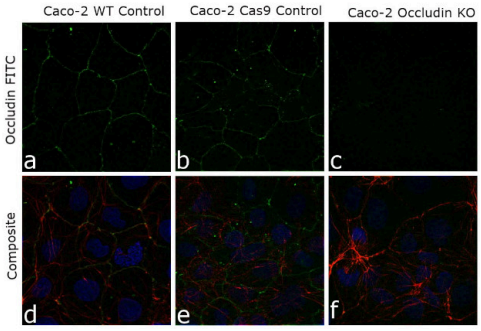
Product Specific Information

Reactivity of this antibody with the occludin protein has been confirmed by immunofluorescence and western blotting (unconjugated). This antibody reacts specifically with mammalian occludin. Tissues/lysates that were tested with this antibody include T84 cell line (human intestinal epithelium), MDCK cells (canine kidney), Caco-2 cells (human colon adenocarcinoma), MTE7B (Mouse), and rat liver.

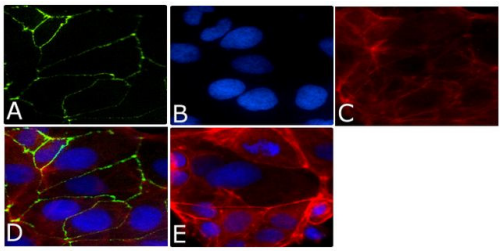
Product Images For Occludin Monoclonal Antibody (OC-3F10), Alexa Fluor™ 488



Occludin Antibody (331588)
Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in Occludin KO cell line compared to control cell line using Occludin Monoclonal Antibody (OC-3F10), Alexa Fluor™ 488 (Product # 331588). {KO}



Occludin Antibody (331588) in ICC/IF
Knockout of Occludin was achieved by CRISPR-Cas9 genome editing using LentiArray™ Lentiviral sgRNA (Product # A32042, Assay ID CRISPR777079_LV) and LentiArray Cas9 Lentivirus (Product # A32064). Immunofluorescence analysis was performed on Caco-2 wild type cells (panel a,d), Caco-2 Cas9 control cells (panel b,e) and Caco-2 Occludin KO cells (panel c, f). Cells were fixed, permeabilized, and labeled with Occludin Monoclonal Antibody (OC-3F10), Alexa Fluor™ 488 (Product # 331588, 1:100). Nuclei (blue) were stained using ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962), and Rhodamine Phalloidin (Product # R415, 1:300) was used for cytoskeletal F-actin (red) staining. Loss of signal (panel c,f) upon CRISPR mediated knockout (KO) confirms that antibody is specific to Occludin (green). The images were captured at 60X magnification.



Occludin Antibody (331588) in ICC/IF
Immunofluorescence analysis of Occludin Antibody, Alexa Fluor® 488 conjugate was done on 90% confluent log phase CaCo2 cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton™ X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with Occludin Antibody, Alexa Fluor® 488 conjugate (Product # 33-1511) at 1µg/mL in 1% BSA and incubated for 3 hours at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor 594 Phalloidin (Product # A12381). Panel d is a merged image showing cell junctional localization. Panel e is a no primary antibody control. The images were captured at 40X magnification.

View more figures on thermofisher.cn

17 References

Western Blot (2)

BioMed research international

Apelin-13 Is an Early Promoter of Cytoskeleton and Tight Junction in Diabetic Macular Edema via PI-3K/Akt and MAPK/Erk Signaling Pathways.

"Published figure using Occludin monoclonal antibody (Product # 331588) in Western Blot"

Authors: Li Y,Bai YJ,Jiang YR,Yu WZ,Shi X,Chen L,Feng J,Sun GB

Year
2018

Species
Human
Mouse

Dilution
1:1,000
1:1,000

The Journal of biological chemistry

The EPAC-Rap1 pathway prevents and reverses cytokine-induced retinal vascular permeability.

"331588 was used in Immunocytochemistry-Immunofluorescence to determine the role of the cAMP dependent guanine nucleotide exchange factor-Rap 1 pathway in retinal vascular permeability."

Authors: Ramos CJ,Lin C,Liu X,Antonetti DA

Year
2018

Species
Bovine

Immunohistochemistry (3)

Cell

A cellular and spatial map of the choroid plexus across brain ventricles and ages.

"331588 was used in Immunohistochemistry to reveal cellular diversity, architecture and signaling across ventricles during development, maturation, and aging of the ChP-brain barrier."

Authors: Dani N,Herbst RH,McCabe C,Green GS,Kaiser K,Head JP,Cui J,Shipley FB,Jang A,Dionne D,Nguyen L, Rodman C,Riesenfeld SJ,Prochazka J,Prochazkova M,Sedlacek R,Zhang F,Bryja V,Rozenblatt-Rosen O,Habib N, Regev A,Lehtinen MK

Year
2021

Species
Mouse

Dilution
1:400

Frontiers in oncology

A Novel Three-Dimensional Glioma Blood-Brain Barrier Model for High-Throughput Testing of Tumoricidal Capability.

"Published figure using Occludin monoclonal antibody (Product # 331588) in Immunocytochemistry"

Authors: Sherman H,Rossi AE

Year
2020

Species
Dog

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More applications with references on thermofisher.cn

IHC (F) (2) **IHC (Free) (1)** **ICC/IF (9)**