

For Research Use Only

ZO-1 Recombinant antibody

Catalog Number: 82870-7-RR



Basic Information

Catalog Number: 82870-7-RR	GenBank Accession Number: BC111712	Purification Method: Protein A purification
Size: 100ul, Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 7082	CloneNo.: 240150D7
Source: Rabbit	UNIPROT ID: Q07157	Recommended Dilutions: WB 1:5000-1:50000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate IHC 1:1000-1:4000 IF/ICC 1:200-1:800
Isotype: IgG	Full Name: tight junction protein 1 (zona occludens 1)	
Immunogen Catalog Number: AG33182	Calculated MW: 1748 aa, 195 kDa Observed MW: 230 kDa	

Applications

Tested Applications: WB, IHC, IF/ICC, FC (Intra), IP, ELISA	Positive Controls:
Species Specificity: human, mouse, rat, canine	WB : HeLa cells, mouse brain tissue, HepG2 cells, Caco-2 cells, HT-29 cells, MCF-7 cells, rat brain tissue
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	IP : HEK-293 cells, IHC : mouse kidney tissue, human placenta tissue, mouse colon tissue IF/ICC : MCF-7 cells, U2OS cells, MDCK cells, Caco-2 cells

Background Information

Tight junction (or zonula occludens) form the continuous intercellular barrier between epithelial and endothelial cells, which is required to separate tissue spaces and regulate selective movement of solutes across the epithelium and endothelium (PMID: 20066090). ZO-1 (also known as TJP1) is a peripheral membrane phosphoprotein located on the cytoplasmic face and is expressed in tight junctions of both epithelial and endothelial cells (PMID: 3528172). It binds the transmembrane proteins occludin and the claudins linking them to cytoskeletal actin (PMID: 17418867). ZO-1 belongs to a family of multidomain proteins known as the membrane-associated guanylate kinase homologs (MAGUKs). It is a pivotal tight junction protein and may be involved in signaling mechanisms regulating cell proliferation and differentiation (PMID: 22782886).

Storage

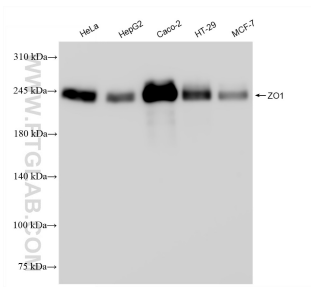
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

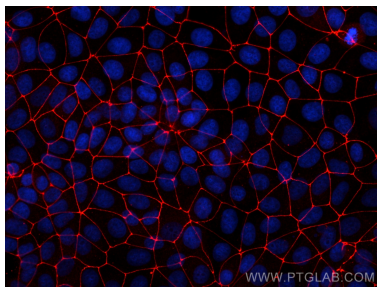
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

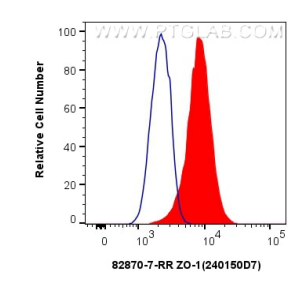
Selected Validation Data



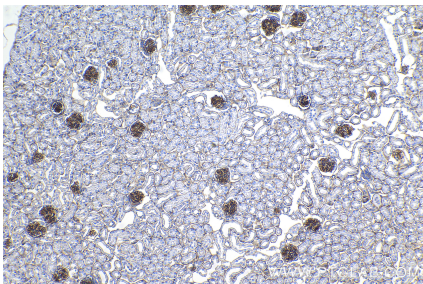
Various lysates were subjected to SDS PAGE followed by western blot with 82870-7-RR (ZO1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



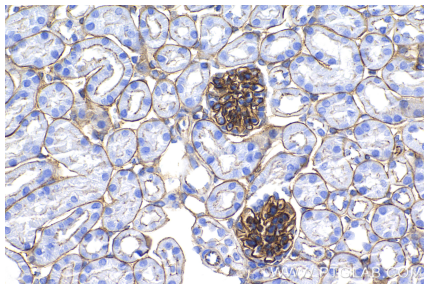
Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using ZO-1 antibody (82870-7-RR, Clone: 240150D7) at dilution of 1:400 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4).



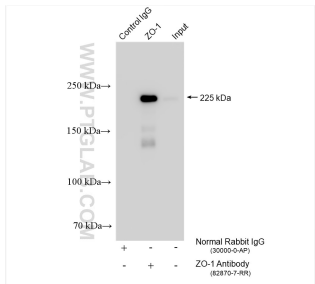
1x10⁶ MCF-7 cells were intracellularly stained with 0.25 ug ZO-1 Recombinant antibody (82870-7-RR, Clone:240150D7) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.25 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



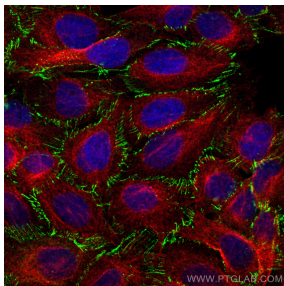
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 82870-7-RR (ZO-1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



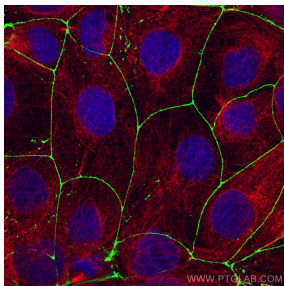
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 82870-7-RR (ZO-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



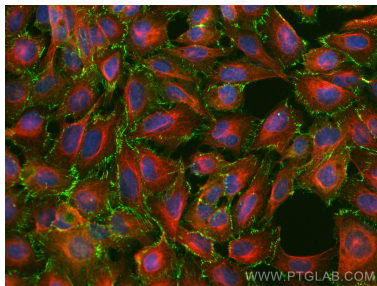
IP result of anti-ZO-1 (IP:82870-7-RR, 4ug; Detection:82870-7-RR 1:4000) with HEK-293 cells lysate 1610 ug.



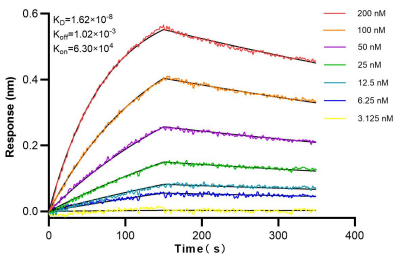
Immunofluorescent analysis of (4% PFA) fixed U2OS cells using ZO-1 antibody (82870-7-RR, Clone: 240150D7) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), Alpha Tubulin antibody (66031-1-Ig, Clone: 1E4C11, red).



Immunofluorescent analysis of (4% PFA) fixed Caco-2 cells using ZO-1 antibody (82870-7-RR, Clone: 240150D7) at dilution of 1:500 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002), Alpha Tubulin antibody (66031-1-Ig, Clone: 1E4C11, red).



Immunofluorescent analysis of (4% PFA) fixed U2OS cells using ZO-1 antibody (82870-7-RR, Clone: 240150D7) at dilution of 1:400 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).



Biolayer interferometry (BLI) kinetic assays of 82870-7-RR against Human ZO-1 were performed. The affinity constant is 16.2 nM.