

For Research Use Only

ZO-1 Recombinant antibody

Catalog Number: 82870-1-RR



Basic Information

Catalog Number:

82870-1-RR

Size:

100ul, Concentration: 1000 µg/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG33182

GenBank Accession Number:

BC111712

GeneID (NCBI):

7082

UNIPROT ID:

Q07157

Full Name:

tight junction protein 1 (zona occludens 1)

Calculated MW:

1748 aa, 195 kDa

Observed MW:

230 kDa

Purification Method:

Protein A purification

CloneNo.:

2P13

Recommended Dilutions:

WB 1:2000-1:10000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:1000-1:4000

IF/ICC 1:750-1:3000

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Species Specificity:

human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: Caco-2 cells, MCF-7 cells, HeLa cells, HepG2 cells

IP: HEK-293 cells,

IHC: mouse kidney tissue, mouse colon tissue

IF/ICC: MCF-7 cells,

Background Information

Tight junction (or zonula occludens) forms the continuous intercellular barrier between epithelial and endothelial cells, which is required to separate tissue spaces and regulate the 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

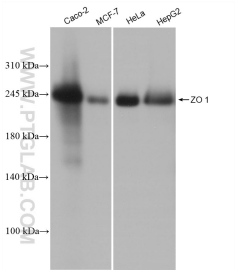
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

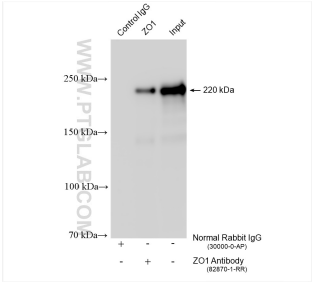
E: proteintech@ptglab.com
W: ptglab.com

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

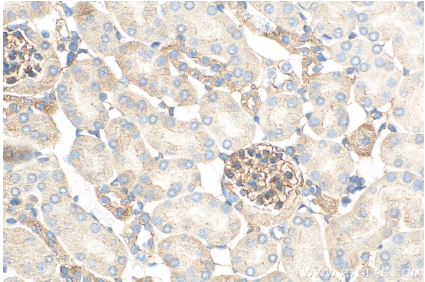
Selected Validation Data



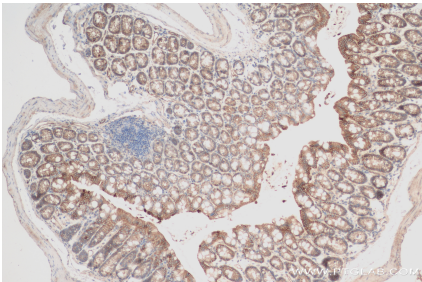
Various lysates were subjected to SDS PAGE followed by western blot with 82870-1-RR (ZO-1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



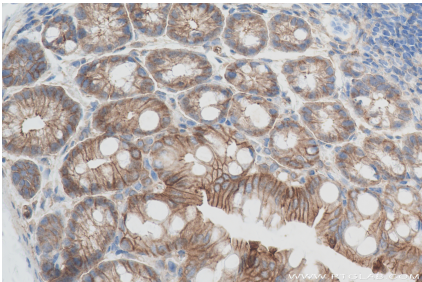
IP result of anti-ZO-1 (IP:82870-1-RR, 4ug; Detection:82870-1-RR 1:2000) with HEK-293 cells lysate 920 ug.



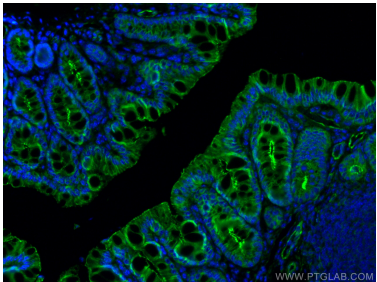
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 82870-1-RR (ZO-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



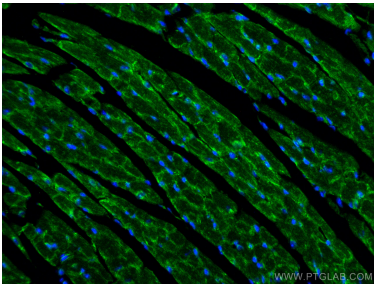
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 82870-1-RR (ZO-1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



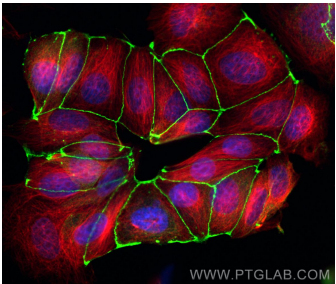
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 82870-1-RR (ZO-1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



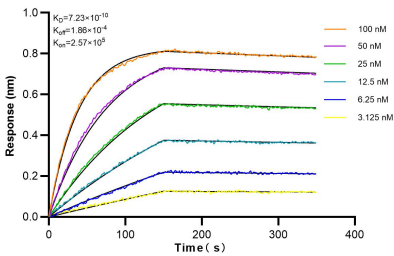
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse colon tissue using ZO-1 antibody (82870-1-RR, Clone: 2P13) at dilution of 1:200 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using ZO-1 antibody (82870-1-RR, Clone: 2P13) at dilution of 1:200 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using ZO-1 antibody (82870-1-RR, Clone: 2P13) at dilution of 1:1500 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), Alpha Tubulin antibody (66031-1-Ig, Clone: 1E4C11, red).



Biolayer interferometry (BLI) kinetic assays of 82870-1-RR against Human ZO-1 were performed. The affinity constant is 0.723 nM.