

For Research Use Only

ZO-1 Polyclonal antibody

Catalog Number: 21773-1-AP

Featured Product

1036 Publications



Basic Information

Catalog Number:

21773-1-AP

Size:

150ul, Concentration: 1000 µg/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG16454

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:

Antigen affinity purification

Recommended Dilutions:

WB 1:5000-1:50000

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

IHC 1:1000-1:4000

IF 1:100-1:2000

Applications

Tested Applications:

WB, IP, IF, FC, ELISA

Cited Applications:

WB, IF, FC, RIP, ELISA

Species Specificity:

human, canine, mouse, rat, hamster

Cited Species:

human, goat, chicken, rat, mouse, rabbit, pig, canine, bovine

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: A549 cells, HEK-293 cells, COLO 320 cells, HT-29 cells, HUVEC cells, HepG2 cells, mouse brain tissue, rat brain tissue, MCF-7 cells, Caco-2 cells, HeLa cells, K-562 cells

IP: HEK-293 cells,

IHC: mouse kidney tissue,

IF: MCF-7 cells, MDCK cells, HUVEC 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).

Notable Publications

Author	Pubmed ID	Journal	Application
Yuanyuan Li	33003577	Mar Drugs	WB
Mingyue Liu	30396738	J Thorac Cardiovasc Surg	WB
Susu Lin	36169685	Psychopharmacology (Berl)	

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

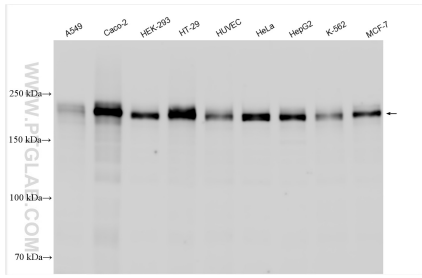
For technical support and original validation data for this product please contact:

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

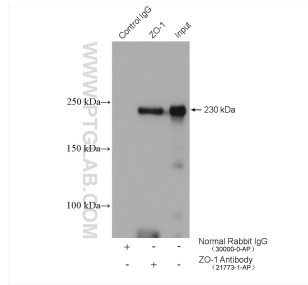
E: proteintech@ptglab.com
W: ptglab.com

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

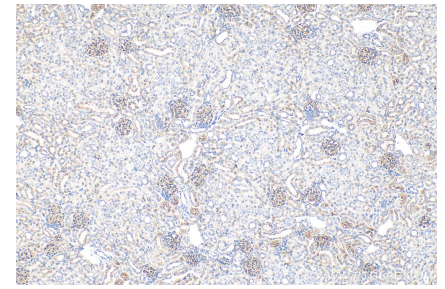
Selected Validation Data



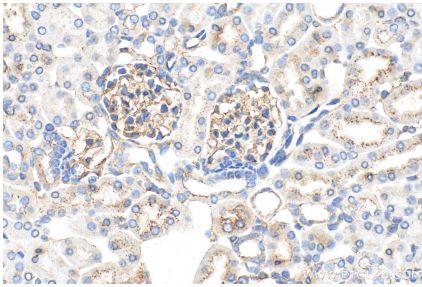
Various lysates were subjected to SDS PAGE followed by western blot with 21773-1-AP (ZO-1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



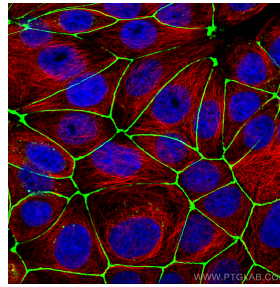
IP result of anti-ZO-1 (IP:21773-1-AP, 4ug; Detection:21773-1-AP 1:500) with HEK-293 cells lysate 2320 ug.



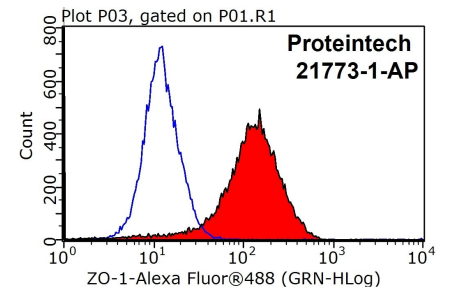
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 21773-1-AP (ZO-1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 21773-1-AP (ZO-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using ZO-1 antibody (21773-1-AP) at dilution of 1:2000 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), Alpha Tubulin antibody (66031-1-Ig, Clone: 1E4C11, red).



1X10⁶ MCF-7 cells were stained with 0.2ug ZO-1 antibody (21773-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.