

For Research Use Only

# ZO-1 Monoclonal antibody

Catalog Number: 66452-1-Ig

Featured Product

56 Publications



## Basic Information

<b>Catalog Number:</b> 66452-1-Ig	<b>GenBank Accession Number:</b> BC111712	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul , Concentration: 2000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 7082	<b>CloneNo.:</b> 1G4A1
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q07157	<b>Recommended Dilutions:</b> WB 1:1000-1:6000 IHC 1:200-1:800 IF 1:750-1:3000
<b>Isotype:</b> IgG1	<b>Full Name:</b> tight junction protein 1 (zona occludens 1)	
<b>Immunogen Catalog Number:</b> AG16454	<b>Calculated MW:</b> 1748 aa, 195 kDa	
	<b>Observed MW:</b> 230 kDa	

## Applications

### Tested Applications:

WB, IF, IHC, ELISA

### Cited Applications:

WB, IF, IHC

### Species Specificity:

human, Canine

### Cited Species:

human, pig

**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 :** HUVEC cells, HeLa cells, COLO 320 cells, A431 cells, LNCaP cells, HEK-293 cells, HepG2 cells

**IHC :** human pancreas cancer tissue, human prostate cancer tissue

**IF :** MCF-7 cells, MDCK cells, human breast cancer tissue

## 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 signalling mechanisms regulating cell proliferation and differentiation (PMID: 22782886).

## Notable Publications

Author	Pubmed ID	Journal	Application
Dayun Feng	36179025	Sci Adv	WB
Chengmei Huang	34583750	J Exp Clin Cancer Res	IF
Yingying Wang	36174863	Int J Biol Macromol	WB,IF

## 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

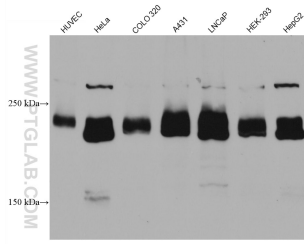
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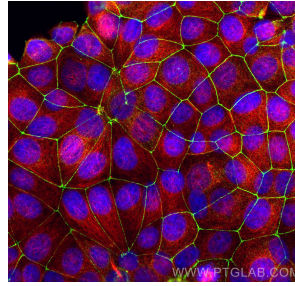
E: proteintech@ptglab.com  
W: ptglab.com

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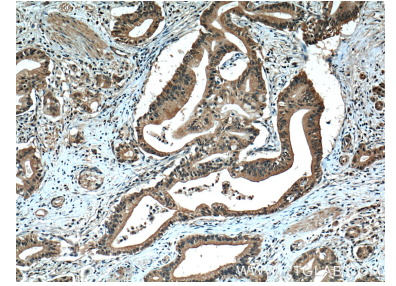
## Selected Validation Data



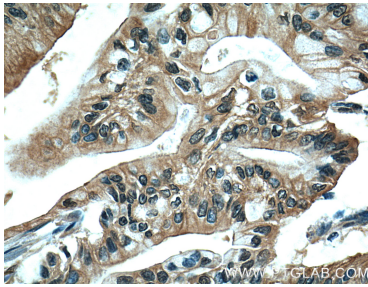
Various lysates were subjected to SDS PAGE followed by western blot with 66452-1-Ig (ZO-1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using ZO-1 antibody (66452-1-Ig, Clone: 1G4A1 ) at dilution of 1:1500 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, red).



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 66452-1-Ig (ZO-1 antibody) at dilution of 1:400 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 66452-1-Ig (ZO-1 antibody) at dilution of 1:400 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).