ZO-1 Polyclonal antibody

Catalog Number: 21773-1-AP

Basic Information

- **Catalog Number:** 21773-1-AP
- **Size:** 150μl, Concentration: 1000 μg/ml by Nanodrop
- **Source:** Rabbit
- **Isotype:** IgG
- **Immunogen Catalog Number:** AG16454
- **GenBank Accession Number:** BC111712
- **GeneID (NCBI):** 7082
- **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 ug for IP and 1:500-1:1000 for WB
- IHC: 1:1000-1:6000
- IF: 1:1000-1:4000

Applications

- **Tested Applications:** FC, IF, IHC, IP, WB, ELISA
- **Cited Applications:** FC, IF, RIP, WB
- **Species Specificity:** human, canine, mouse, rat, hamster
- **Cited Species:** human, 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

Background Information

Tight junction (or zona 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

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<th>Author</th>
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<tr>
<td>Yuanyuan Li</td>
<td>33003577</td>
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<td>Mingyue Liu</td>
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<td>Susu Lin</td>
<td>36169685</td>
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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 1:5000) with HEK-293 cells lysate 2320 ug.


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).

1X10^6 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.