Zona Occludens 1 (ZO-1) is a tight junction (TJ) protein found in complexes at cell-cell contacts. The role of ZO-1 is to recruit other TJ proteins.

**Where is ZO-1 expressed?**
ZO-1 is expressed in many tissues including the intestine, kidney, liver, and skeletal muscle cells. It is common in endothelial cells, which form the outer barrier of organs. ZO-1 is expressed in many tissues including the intestine, kidney, liver, and skeletal muscle cells.

**What proteins does ZO-1 interact with?**
ZO-1 interacts with various proteins, including:
- Catenins
- Occludins
- Claudins
- Connexins
- Junctional adhesion molecules (JAMs)
- Actin filaments
- Cortactin

**What is the function of ZO-1?**
ZO-1 is involved in maintaining tight junctions, which regulate paracellular flow, contribute to apical-basal polarity, and are part of signaling pathways for proliferation and differentiation. ZO-1 plays a crucial role in maintaining the integrity of tight junction complexes, which are essential for maintaining barrier function.

**Observed MW:** 220 kDa
**Calculated MW:** 230 kDa

**Catalog Number:** 21773-1-AP

**Positive Controls:**
- WB: HepG2 cells, A431 cells, CCL030 cells
- IF: MDCK cells, CHO cells, HUVEC cells

**Recommended Dilutions:**
- WB: 1:500-1:1000
- IP: 0.5-4.0 μg for IP and 1:500-1:1000 for WB

**Dilution:**
- WB: 1:20-1:200

**Size:**
- 96 μg/150 μl

**Source:**
- Rabbit

**IgG:**
- 1:20-1:200

**Antigen of affinity purification:**
- 0.5-4.0 μg for IP and 1:500-1:1000 for WB

**Immunogen Catalog Number:** A516454

**Applications**
- Tested Applications: FC, IF, IP, WB, ELISA
- Cited Applications: FC, IF, IHC, WB

**Species Specificity:**
- Human, dog, mouse, rat, hamster

**Species:**
- Cow, human, mouse, pig, rat, swine

**GenBank Accession Number:** BC111712

**GenHost (NCBI):** 7032

**Fusion Protein:**
- Full Name: tight junction protein 1 (zona occludens 1)
- Isotype: IgG

**Purification Method:**
- Antigen affinity purification

**Storage Buffer:**
- PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

**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.

**Antigenicity:**
- Notable in mouse, rat, pig, rabbit, human, dog, and swine.

**Purity of Protein:**
- Protein purity: >95%

**Positive Controls:**
- WB: HepG2 cells, A431 cells, CCL030 cells
- IF: MDCK cells, CHO cells, HUVEC cells

**Testing Applications:**
- FC, IF, IP, WB, ELISA

**Cited Applications:**
- FC, IF, IHC, WB

**Cited Species:**
- Human, dog, mouse, rat, hamster

**Cited Publications:**

**Author:** Xinmiao Yu
**Journal:** Oncotarget
**PubMed ID:** 26125443

**Author:** Qing Zeng
**Journal:** Front Microbiol
**PubMed ID:** 28179247

**Author:** Ji-Ae Ko
**Journal:** Cell Biochem Funct
**PubMed ID:** 26300038

**GeneID (NCBI):** BC111712

**GenBank Accession Number:** BC111712

**Calculated MW:** 230 kDa

**Observed MW:** 230 kDa

**Stable for:** One year after shipment.

**Store at:** -20°C.

**For Research Use Only**

**Free in USA:**

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

**E:** proteintech@ptglab.com

**W:** ptglab.com

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Selected Validation Data

HepG2 cells were subjected to SDS-PAGE followed by western blot with 21773-1-AP (ZO-1 antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours.

Immunofluorescent analysis of (-20°C Ethanol) fixed HUVEC cells using 21773-1-AP (ZO-1 antibody) at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

Immunofluorescent analysis of (-20°C Ethanol) fixed MDCK cells using 21773-1-AP (ZO-1 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

10,000 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 (50 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.