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ZO1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4783b

Specification

ZO1 Antibody (C-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	Q07157
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**195459**
Antigen Region	**1570-1600**

ZO1 Antibody (C-term) - Additional Information

Gene ID 7082

Other Names
Tight junction protein ZO-1, Tight junction protein 1, Zona occludens protein 1, Zonula occludens protein 1, TJP1, ZO1

Target/Specificity
This ZO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1570-1600 amino acids from the C-terminal region of human ZO1.

Dilution
FC~~1:10~50
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ZO1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ZO1 Antibody (C-term) - Protein Information

Name TJP1 (HGNC:11827)

Function TJP1, TJP2, and TJP3 are closely related scaffolding proteins that link tight junction (TJ) transmembrane proteins such as claudins, junctional adhesion molecules, and occludin to the actin cytoskeleton (PubMed:7798316, PubMed:9792688). Forms a multistranded TJP1/ZO1 condensate which elongates to form a tight junction belt, the belt is anchored at the apical cell membrane via interaction with PATJ (By similarity). The tight junction acts to limit movement of substances through the paracellular space and as a boundary between the compositionally distinct apical and basolateral plasma membrane domains of epithelial and endothelial cells. Necessary for lumenogenesis, and particularly efficient epithelial polarization and barrier formation (By similarity). Plays a role in the regulation of cell migration by targeting CDC42BPB to the leading edge of migrating cells (PubMed:21240187). Plays an important role in podosome formation and associated function, thus regulating cell adhesion and matrix remodeling (PubMed:20930113). With TJP2 and TJP3, participates in the junctional retention and stability of the transcription factor DBPA, but is not involved in its shuttling to the nucleus (By similarity). May play a role in mediating cell morphology changes during ameloblast differentiation via its role in tight junctions (By similarity).

Cellular Location
Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, tight junction. Cell junction. Cell junction, gap junction. Cell projection, podosome. Note=Moves from the cytoplasm to the cell membrane concurrently with cell-cell contact (PubMed:7798316). Forms a condensed tight junction-linked belt of protein during junction formation which becomes anchored to the apical cell membrane via interaction with PATJ (By similarity). At podosomal sites, is predominantly localized in the ring structure surrounding the actin core (PubMed:20930113). Colocalizes with SPEF1 at sites of cell- cell contact in intestinal epithelial cells (PubMed:31473225) {ECO:0000250|UniProtKB:O97758, ECO:0000269|PubMed:20930113, ECO:0000269|PubMed:31473225, ECO:0000269|PubMed:7798316}

Tissue Location
The alpha-containing isoform is found in most epithelial cell junctions. The short isoform is found both in endothelial cells and the highly specialized epithelial junctions of renal glomeruli and Sertoli cells of the seminiferous tubules

ZO1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ZO1 Antibody (C-term) - Images

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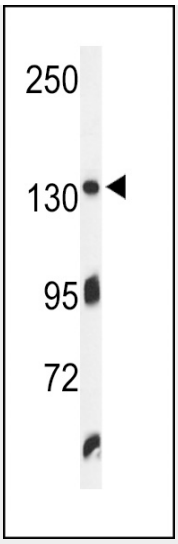
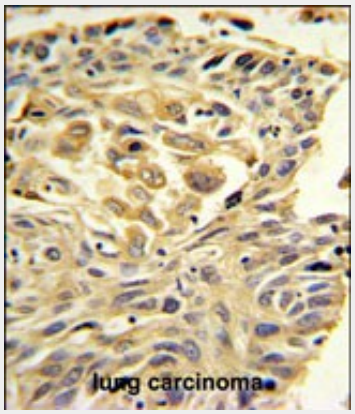
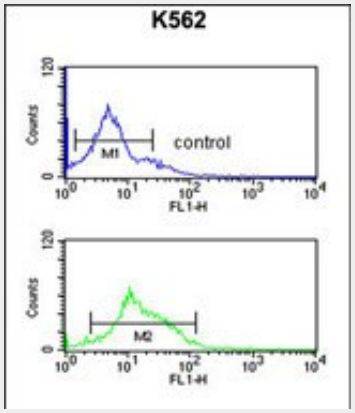


Western blot analysis of ZO1 Antibody (C-term) (Cat. #AP4783b) in K562 cell line lysates (35ug/lane). ZO1 (arrow) was detected using the purified Pab.



ZO1 Antibody (C-term)(Cat. #AP4783b) IHC analysis in formalin fixed and paraffin embedded lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ZO1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



ZO1 Antibody (C-term) (Cat. #AP4783b) flow cytometric analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ZO1 Antibody (C-term) - Background

ZO1 encodes a protein located on a cytoplasmic membrane surface of intercellular tight junctions. The encoded protein may be involved in signal transduction at cell-cell junctions.

ZO1 Antibody (C-term) - References

Ohira, M., et al. Int. J. Mol. Med. 24(6):829-835(2009)
Hirakawa, H., et al. Int. J. Oncol. 35(6):1271-1276(2009)
Meerschaert, K., et al. Cell. Mol. Life Sci. 66(24):3951-3966(2009)
Kirschner, N., et al. Am. J. Pathol. 175(3):1095-1106(2009)

ZO1 Antibody (C-term) - Citations

- Pharmacodynamic Effect of Ellagic Acid on Ameliorating Cerebral Ischemia/Reperfusion Injury.