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TJP1 / ZO-1 Antibody (aa1-296)

Rabbit Polyclonal Antibody
Catalog # ALS16946

Specification

TJP1 / ZO-1 Antibody (aa1-296) - Product Information

Application	**IHC, ICC, WB**
Primary Accession	Q07157
Other Accession	7082
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**

TJP1 / ZO-1 Antibody (aa1-296) - Additional Information

Gene ID 7082

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

Target/Specificity
Human ZO-1

Format
1 mg/mL antibody in 1X PBS, pH 7, 0.025% ProClin™ 300, 20% Glycerol

Reconstitution & Storage
Keep as concentrated solution. Aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Precautions
TJP1 / ZO-1 Antibody (aa1-296) is for research use only and not for use in diagnostic or therapeutic procedures.

TJP1 / ZO-1 Antibody (aa1-296) - Protein Information

Name TJP1

Synonyms ZO1

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). 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).

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). 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).

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

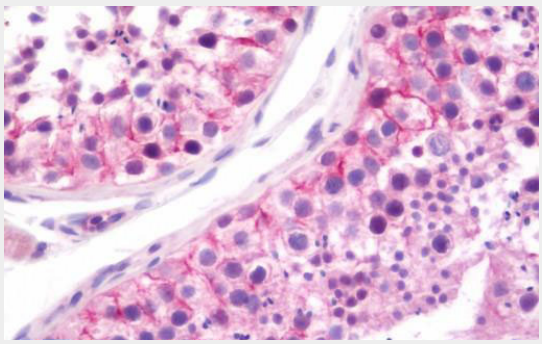
Volume
Array

TJP1 / ZO-1 Antibody (aa1-296) - 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

TJP1 / ZO-1 Antibody (aa1-296) - Images



Anti-TJP1 / ZO-1 antibody IHC staining of human testis.

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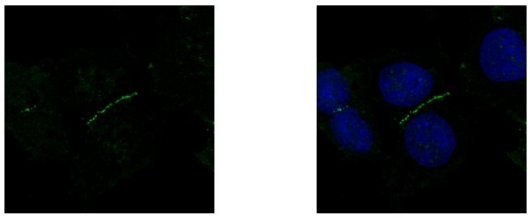
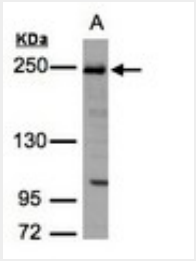


ZO-1 antibody, N-term detects TJP1 protein at junction by confocal immunofluorescent analysis.



Sample (30 ug whole cell lysate). A: H1299. 5% SDS PAGE. ZO-1 antibody diluted at 1:3000

TJP1 / ZO-1 Antibody (aa1-296) - Background

The N-terminal may be involved in transducing a signal required for tight junction assembly, while the C-terminal may have specific properties of tight junctions. The alpha domain might be involved in stabilizing junctions. Plays a role in the regulation of cell migration by targeting CDC42BPB to the leading edge of migrating cells.

TJP1 / ZO-1 Antibody (aa1-296) - References

Willott E.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:7834-7838(1993).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
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Cohen C.J.,et al.Proc. Natl. Acad. Sci. U.S.A. 98:15191-15196(2001).
D'Atri F.,et al.J. Biol. Chem. 277:27757-27764(2002).