

## Antibodies

### Anti-Human Tight Junction Protein 1 (ZO-1) Antibody, Polyclonal

Rabbit polyclonal IgG antibody against human tight junction protein 1 (ZO-1), unconjugated

Catalog #100-0750	50 µL
#100-0751	100 µL
#100-0752	200 µL



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## Product Description

The anti-human tight junction protein 1 (TJP1) antibody reacts with human TJP1, also known as the zona occludens-1 (ZO-1) protein. TJP1 is a 220 kDa membrane-associated signaling protein that belongs to the family of membrane-associated guanylate kinase (MAGUK) homologs. The TJP1 protein contains three postsynaptic density, disc-large, ZO-1 domains (PDZ), a single Src Homology-3 domain (SH3), and a catalytically inactive guanylate kinase (GK) domain. TJP1 shares ~65% overall similarity with ZO-2 and ZO-3 proteins, with the highest levels of similarity in the MAGUK and acid domains. The TJP1 proteins, along with other proteins such as occludin and claudins, provide anchorage between strand proteins and the actin cytoskeleton. TJP1 dysfunction has been associated with cancer metastasis due to the loss of tight junction barrier function.

Target Antigen Name:	TJP1
Alternative Names:	ZO-1, Zonula occludens-1
Gene ID:	7082
Species Reactivity:	Human
Host Species:	Rabbit
Clonality:	Polyclonal
Clone:	Not applicable
Isotype:	IgG
Immunogen:	A synthetic peptide corresponding to the center region of the human TJP1
Conjugate:	Unconjugated

## Applications

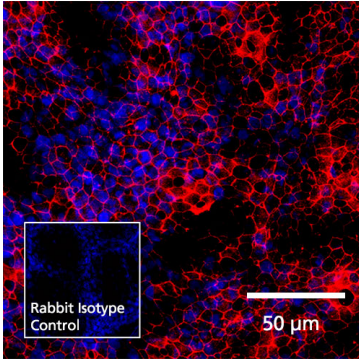
Verified:	ICC/IF
Reported:	IHC-Paraffin, ICC/IF, IP, WB
Special Applications:	This antibody clone has been verified for labeling human bronchial epithelial cells (HBECs) cultured in PneumaCult™-ALI Medium (Catalog #05001) in air-liquid interface cultures.

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

Formulation:	Phosphate-buffered saline
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at -20°C when stored undiluted. Stable until expiry date (EXP) on label.
Directions for Use:	The suggested use of this antibody is: IHC-Paraffin, 1:500 - 1:2000; ICC/IF, 1:300 - 1:10,000. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



HBECs were cultured in PneumaCult™-ALI Medium, then fixed, permeabilized, and labeled with Anti-Human Tight Junction Protein 1 (ZO-1) Antibody, Polyclonal, followed by goat anti-rabbit IgG (H+L), Alexa Fluor® 647. Nuclei were counter-stained with DAPI. Inset shows cells labeled with rabbit IgG isotype control antibody, followed by goat anti-rabbit IgG (H+L), Alexa Fluor® 647 (with DAPI staining).

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

1. Itoh M et al. (2014) The structural and functional organization of the podocyte filtration slits is regulated by Tjp1/ZO-1. *PLoS One* 9(9): 1–11. (IP)
2. Jeong JY et al. (2008) Functional and developmental analysis of the blood-brain barrier in zebrafish. *Brain Res Bull* 75(5): 619–28. (WB, IF)

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