ARG42916
anti-ZO1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ZO1
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ZO1
Species	Human
Immunogen	Human ZO1.
Conjugation	Un-conjugated
Alternate Names	Zonula occludens protein 1; Tight junction protein ZO-1; Tight junction protein 1; Zona occludens protein 1; ZO-1

Application Instructions

Application table

Application	Dilution
ICC/IF	1:200 - 1:500
IHC-P	1:100 - 1:200
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

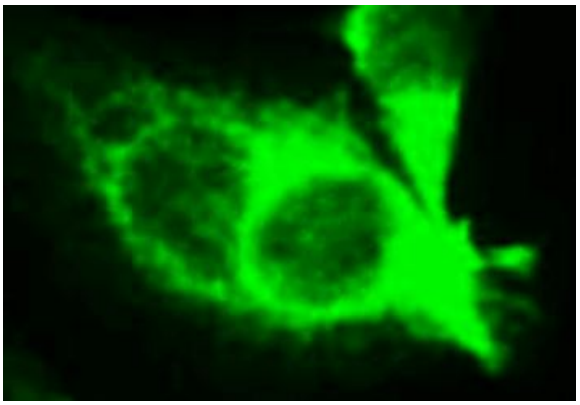
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	100 mM Tris Glycine (pH 7.0), 0.025% ProClin 300, 20% Glycerol and 1% BSA.
Preservative	0.025% ProClin 300
Stabilizer	20% Glycerol and 1% BSA
Concentration	0.47 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

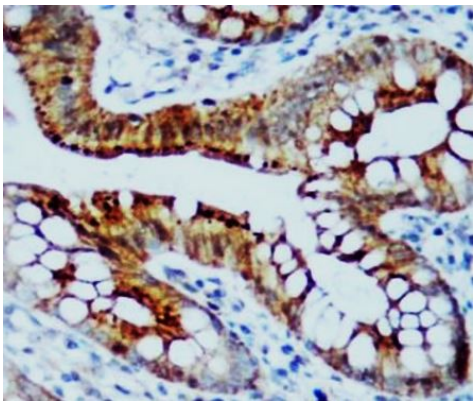
Gene Symbol	TJP1
Gene Full Name	tight junction protein 1
Background	This gene encodes a member of the membrane-associated guanylate kinase (MAGUK) family of proteins, and acts as a tight junction adaptor protein that also regulates adherens junctions. Tight junctions regulate the movement of ions and macromolecules between endothelial and epithelial cells. The multidomain structure of this scaffold protein, including a postsynaptic density 95/disc-large/zona occludens (PDZ) domain, a Src homology (SH3) domain, a guanylate kinase (GuK) domain and unique (U) motifs all help to co-ordinate binding of transmembrane proteins, cytosolic proteins, and F-actin, which are required for tight junction function. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2017]
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 to the junctional retention and stability of the transcription factor DBPA, but is not involved in its shuttling to the nucleus (By similarity). [UniProt]
Calculated Mw	195 kDa
PTM	Phosphorylated. Dephosphorylated by PTPRJ. [UniProt]
Cellular Localization	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). [UniProt]

Images



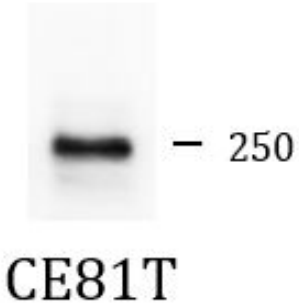
ARG42916 anti-ZO1 antibody ICC/IF image

Immunofluorescence: HT-29 cells were fixed with 4% paraformaldehyde for 10 min at RT, permeabilized with 0.1% NP-40 for 10 min at RT then blocked with 5% BSA for 30 min at room temperature. Cells were stained with ARG42916 anti-ZO1 antibody at 1:150 dilution and 4°C.



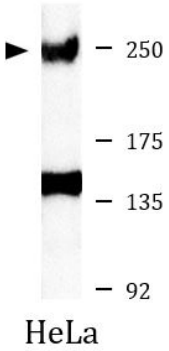
ARG42916 anti-ZO1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human colorectal carcinoma tissue stained with ARG42916 anti-ZO1 antibody at 1:100 dilution.



ARG42916 anti-ZO1 antibody WB image

Western blot: 50 µg of CE81T cell lysate stained with ARG42916 anti-ZO1 antibody at 1:500 dilution.



ARG42916 anti-ZO1 antibody WB image

Western blot: 30 µg of HeLa cell lysate stained with ARG42916 anti-ZO1 antibody at 1:500 dilution.