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# Anti-Zonula Occludens Protein 3 Antibody

Catalog # ABO11281

## Product Information

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| **Application** | WB, IHC-P |
| **Primary Accession** | Q9QXY1 |
| **Host** | Rabbit |
| **Reactivity** | Mouse, Rat |
| **Clonality** | Polyclonal |
| **Format** | Lyophilized |
| **Description** | Rabbit IgG polyclonal antibody for Tight junction protein ZO-3(TJP3) detection. Tested with WB, IHC-P in Mouse;Rat. |
| **Reconstitution** | Add 0.2ml of distilled water will yield a concentration of 500ug/ml. |

## Additional Information

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| **Other Names** | Tight junction protein ZO-3, Tight junction protein 3, Zona occludens protein 3, Zonula occludens protein 3, Tjp3, Zo3 |
| **Calculated MW** | 99324 |
| **Application Details** | Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 □g/ml, Rat, Mouse |
| **Subcellular Localization** | Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . Cell junction, tight junction . |
| **Source** | Eukaryota |
| **Protein Name** | Tight junction protein ZO-3 |
| **Contents** | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. |
| **Immunogen** | A synthetic peptide corresponding to a sequence at the C-terminus of mouse Zonula occludens protein 3(885-905aa RARDVESSDDEGYDWGPATDL), identical to the related rat sequence. |
| **Purification** | Immunogen affinity purified. |
| **Cross Reactivity** | No cross reactivity with other proteins |
| **Storage** | At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing. |

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| **Sequence Similarities** | Belongs to the MAGUK family. |

## Protein Information

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| **Name** | Tjp3 |
| **Synonyms** | Zo3 |
| **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:17000770). 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. Binds and recruits PatJ to tight junctions where it connects and stabilizes apical and lateral components of tight junctions (By similarity). Promotes cell-cycle progression through the sequestration of cyclin D1 (Ccnd1) at tight junctions during mitosis which prevents Ccnd1 degradation during M- phase and enables S-phase transition (PubMed:21411630). With Tjp1 and Tjp2, participates in the junctional retention and stability of the transcription factor DbpA, but is not involved in its shuttling to the nucleus (By similarity). Contrary to Tjp2, Tjp3 is dispensable for individual viability, embryonic development, epithelial differentiation, and the establishment of TJs, at least in the laboratory environment (PubMed:17000770, PubMed:18172007). |
| **Cellular Location** | Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, tight junction. Nucleus {ECO:0000250\|UniProtKB:O95049}. Note=Exhibits predominant nuclear expression in proliferating cells but is exclusively junctionally expressed after confluence is reached (By similarity). Shows an epithelial-specific tight junction localization in a Tjp1/Tjp2-dependent fashion (PubMed:21411630). {ECO:0000250\|UniProtKB:O95049, ECO:0000269\|PubMed:21411630} |
| **Tissue Location** | Is concentrated in various types of epithelium, in tissues such as the lung, liver and kidney, but not in endothelium or at cadherin-based cell-cell adhesion sites (PubMed:14622136) |

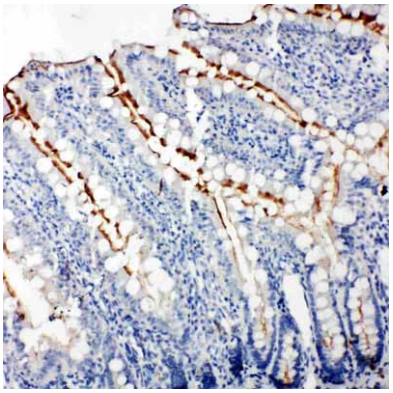
## Background

TJP3(TIGHT JUNCTION PROTEIN 3), also called ZO3, is a protein that in humans is encoded by the TJP3 gene. TJP3 is a member of the family of membrane-associated guanylate kinase-like proteins(MAGUK) that associate with intracellular junctions(Itoh et al., 1999). Haskins et al.(1998) showed that recombinant Tjp3 binds in vitro translated Tjp1 and binds directly to the cytoplasmic tail of occludin but no binding was detected between Tjp3 and Tjp2. Roh et al.(2002) determined that Tjp3 interacted with PATJ(INADL) and that both proteins colocalized to tight junctions in vivo. In vitro studies showed that the sixth and eighth PDZ domains of PATJ mediated interaction with the Tjp3 C-terminal domain and with Cldn1, respectively.

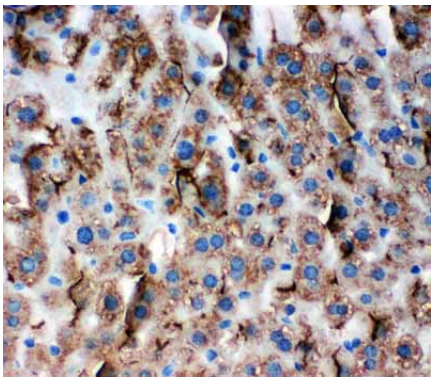
## Images

Anti-Zonula occludens protein 3 antibody, ABO11281, Western blottingLane 1: Rat Brain Tissue LysateLane 2: Rat Heart Tissue Lysate



Anti-Zonula occludens protein 3 antibody, ABO11281, IHC(P)IHC(P): Rat Intestine Tissue



Anti-Zonula occludens protein 3 antibody, ABO11281, IHC(P)IHC(P): Mouse Liver Tissue

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