

Rabbit TJP2/ZO2 Polyclonal Antibody | anti-TJP2 antibody

Anti-TJP2/ZO2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19265	Rabbit	Human, Monkey, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

TJP2/ZO2; Polyclonal Antibody; Anti-TJP2/ZO2 Antibody; TJP2; X104; ZO2; Tight junction protein ZO-2; Tight junction protein 2; Zona occludens protein 2; Zonula occludens protein 2; tight junction protein 2; anti-TJP2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Monkey, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for TJP2/ZO2 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-TJP2 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Application Notes	WB: 0.25-0.5ug/ml Human, Monkey, Mouse, Rat IHC-P: 2-5ug/ml Human ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human
Immunogen	A synthetic peptide corresponding to a sequence of human TJP2/ZO2 (QEAQNARIEIAQKHPDIYAVPIK).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of CACO-2 cells using anti-TJP2/ZO2 antibody (AAA19265). Overlay histogram showing CACO-2 cells stained with AAA19265 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TJP2/ZO2 Antibody (AAA19265, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



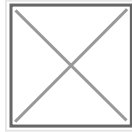
IF (Immunofluorescence)

Figure 5. IF analysis of TJP2/ZO2 using anti-TJP2/ZO2 antibody (AAA19265). TJP2/ZO2 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL rabbit anti-TJP2/ZO2 Antibody (AAA19265) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



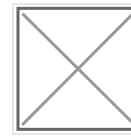
IHC (Immunohistochemistry)

Figure 4. IHC analysis of TJP2/ZO2 using anti-TJP2/ZO2 antibody (AAA19265).TJP2/ZO2 was detected in paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-TJP2/ZO2 Antibody (AAA19265) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



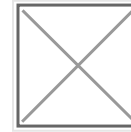
IHC (Immunohistochemistry)

Figure 2. IHC analysis of TJP2/ZO2 using anti-TJP2/ZO2 antibody (AAA19265).TJP2/ZO2 was detected in paraffin-embedded section of human ovarian serous adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-TJP2/ZO2 Antibody (AAA19265) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 3. IHC analysis of TJP2/ZO2 using anti-TJP2/ZO2 antibody (AAA19265).TJP2/ZO2 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-TJP2/ZO2 Antibody (AAA19265) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



WB (Western Blot)

Figure 1. Western blot analysis of TJP2/ZO2 using anti-TJP2/ZO2 antibody (AAA19265).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions.Lane 1: human Hek293 whole cell lysatesLane 2: monkey COS-7 whole cell lysatesLane 3: human Hela whole cell lysatesLane 4: human MCF-7 whole cell lysatesLane 5: human HepG2 whole cell lysatesLane 6: rat brain tissue lysatesLane 7: mouse brain tissue lysatesLane 8: mouse HEPA1-6 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-TJP2/ZO2 antigen affinity purified polyclonal antibody (Catalog # AAA19265) at 0. 5 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system. A specific band was detected for TJP2/ZO2 at approximately 150KD. The expected band size for TJP2/ZO2 is at 150KD.

ADDITIONAL INFORMATION

Related Product Information for anti-TJP2 antibody	TJP2(Tight Junction Protein 2), also known as Zona Occludens 2 or ZO2 is a protein that in humans is encoded by the TJP2 gene. Tight junction proteins(TJPs) belong to a family of membrane-associated guanylate kinase(MAGUK) homologs that are involved in the organization of epithelial and endothelial intercellular junctions. Duclos et al. (1994) mapped the TJP2 gene telomeric to the Friedreich ataxia critical region on chromosome 9q13-q21. TJP2 lies about 70 kb centromeric to the X123 gene and is transcribed in the centromere-to-telomere direction. Using in vitro assays and immunoprecipitation studies, Itoh et al. (1999) showed that the mouse Tjp1, Tjp2, and Tjp3 PDZ1 domains interacted with the C-terminal cytoplasmic domains of Cldn1 through Cldn8. In the mouse inner ear, Walsh et al. (2010) found that Tjp2 expression decreased rapidly between E16. 5 and age 1 week to a level in adult mice that was approximately 50% of the level at birth(P0).
References	1. Duclos, F., Rodius, F., Wrogemann, K., Mandel, J. -L., Koenig, M. The Friedreich ataxia region: characterization of two novel genes and reduction of the critical region to 300 kb. Hum. Molec. Genet. 3: 909-914, 1994. 2. Itoh, M., Furuse, M., Morita, K., Kubota, K., Saitou, M., Tsukita, S. Direct binding of three tight junction-associated MAGUKs, ZO-1, ZO-2, and ZO-3, with the COOH termini of claudins. J. Cell Biol. 147: 1351-1363, 1999. 3. Walsh, T., Pierce, S. B., Lenz, D. R., Brownstein, Z., Dagan-Rosenfeld, O., Shahin, H., Roeb, W., McCarthy, S., Nord, A. S., Gordon, C. R., Ben-Neriah, Z., Sebat, J., Kanaan, M., Lee, M. K., Frydman, M., King, M. -C., Avraham, K. B. Genomic duplication and overexpression of TJP2/ZO-2 leads to altered expression of apoptosis genes in progressive nonsyndromic hearing loss DFNA51. Am. J. Hum. Genet. 87: 101-109, 2010.

NCBI AND UNIPROT INFORMATION

NCBI GI #	42518070
NCBI GeneID	9414
NCBI Accession #	NP_004808.2
NCBI GenBank Nucleotide #	NM_004817.3

UniProt Accession #	Q9UDY2; Q15883; Q5VXL0; Q5VXL1; Q8N756; Q8NI14; Q99839; A2A3H9; B7Z2R8; B7Z7T6; F5H301; F5H886
Molecular Weight	133,958 Da
NCBI Official Full Name	tight junction protein ZO-2 isoform 1
NCBI Official Synonym Full Names	tight junction protein 2
NCBI Official Symbol	TJP2
NCBI Official Synonym Symbols	ZO2; X104; PFIC4; DFNA51; DUP9q21.11; C9DUPq21.11
NCBI Protein Information	tight junction protein ZO-2; zona occludens 2; zonula occludens protein 2; Friedreich ataxia region gene X104 (tight junction protein ZO-2)
UniProt Protein Name	Tight junction protein ZO-2
UniProt Gene Name	TJP2
UniProt Synonym Gene Names	X104; ZO2
UniProt Entry Name	ZO2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/tjp2-zo2-antibody-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/19265>