

ZO-2 (H-110): sc-11448

BACKGROUND

Tight junctions are complexes of proteins that create intercellular boundaries between the plasma membrane domains of epithelial and endothelial cells. Many of the tight junction-associated proteins are members of the membrane-associated guanylate kinase (MAGUK) family and include Occludin, ZO-1, ZO-2 and ZO-3. These proteins are thought to have both structural and signaling roles, and are characteristically defined by three protein-protein interaction modules: the PDZ domain, the SH3 domain and the guanylate kinase (GuK) domain. ZO-1 forms complexes with either ZO-2 or ZO-3. In addition, these proteins can also associate with Claudin, Occludin and F-Actin, at tight junction stands, where they provide a linkage between the actin cytoskeleton and the tight junction. ZO-1 expression is significantly reduced in many breast cancer lines. ZO-2 and ZO-3 are ubiquitously expressed within epithelial tight junctions, and unlike ZO-1, which is also expressed at cell junctions of cardiac myocytes, ZO-2 is not expressed in nonepithelial tissue.

CHROMOSOMAL LOCATION

Genetic locus: TJP2 (human) mapping to 9q21.11; Tjp2 (mouse) mapping to 19 B.

SOURCE

ZO-2 (H-110) is a rabbit polyclonal antibody raised against amino acids 391-500 mapping within an internal region of ZO-2 (Zonula Occludens-2) of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ZO-2 (H-110) is recommended for detection of ZO-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ZO-2 (H-110) is also recommended for detection of ZO-2 in additional species, including canine.

Suitable for use as control antibody for ZO-2 siRNA (h): sc-29833, ZO-2 siRNA (m): sc-29926, ZO-2 shRNA Plasmid (h): sc-29833-SH, ZO-2 shRNA Plasmid (m): sc-29926-SH, ZO-2 shRNA (h) Lentiviral Particles: sc-29833-V and ZO-2 shRNA (m) Lentiviral Particles: sc-29926-V.

Molecular Weight of ZO-2: 160 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or MDCK cell lysate: sc-2252.

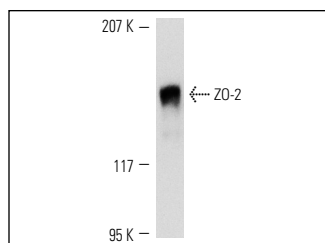
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

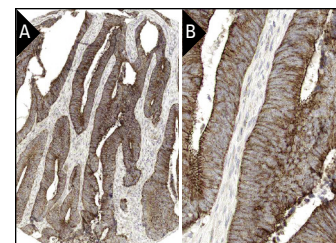
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



ZO-2 (H-110): sc-11448. Western blot analysis of ZO-2 expression in HeLa whole cell lysate.



ZO-2 (H-110): sc-11448. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colorectal cancer tissue showing membrane and cytoplasmic staining of tumor cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

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Try **ZO-2 (E-3): sc-515115** or **ZO-2 (E-5): sc-514557**, our highly recommended monoclonal alternatives to ZO-2 (H-110).