



Qty: 100µg/400 µL

Rabbit anti-ZO-2 (C-term)

Catalog No. 38-9100

Lot No.

Rabbit anti-ZO-2 (C-term)

FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.406

IMMUNOGEN

Synthetic peptide derived from the C-terminal region of human or dog ZO-2

SPECIFICITY

This antibody reacts with the ~130-160 kDa ZO-2 protein. This antibody will recognize ZO-2 isoforms A or C. A band of unknown origin lower than 75 kDa may be observed in certain lysates.

REACTIVITY

Reactivity has been confirmed in Western blotting with CaCO₂ human colorectal adenocarcinoma, MDCK II dog kidney, KNRK rat kidney, and TMCK-1 mouse kidney cell lysates. Immunofluorescence was confirmed using CaCO₂, MDCK II, and NRK52E cell lines.

Sample	Western Blotting	Immunofluorescence
Human	+++	+++
Rat	+++	+++
Dog	+++	+++
Mouse	+++	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1-3 µg/mL
Immunofluorescence: 2.5 µg/mL

Important: Cells were fixed with ice-cold ethanol for 30 minutes on ice prior to immunofluorescent assays.

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI389100

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BACKGROUND

Tight junctions are intercellular junctions that act as both the barrier (or gate), and the fence. The barrier function of tight junctions regulates the passage of ions, water, and various macromolecules through paracellular spaces. The fence function maintains cell polarity, thus, tight junctions work as a fence to prevent intermixing of molecules in the apical membrane with those in the lateral membrane. Tight junctions are comprised of the membrane proteins ZO, occludin, claudins, and JAMs.¹

The zonula occludens proteins, ZO-1, ZO-2 and ZO-3 are tight junction proteins that belong to the membrane-associated guanylated kinase (MAGUK) family. ZOs are involved in the organization of epithelial and endothelial intercellular junctions and bind to the cytoplasmic C-termini of junctional transmembrane proteins linking them to the actin cytoskeleton. ZOs contain some unique motifs not shared by other MAGUK family members, including nuclear localization and nuclear export signals and a leucine zipper-like sequence. ZOs also have potential involvement in cell growth and proliferation.²

REFERENCES

1. Sawada N, et al. *Med Electron Microsc* 36(3): 147-56, 2003.
2. Traweger A, et al. *J Biol Chem* 278(4): 2692-700, 2003.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

Conjugate	ZyMAX[™] Goat x Rabbit IgG (H+L)	ZyMAX[™] Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy [™] 3	81-6115	81-6515
Cy [™] 5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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