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Product Information

Anti-Occludin (C-terminal)
produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200489**

Product Description

Anti-Occludin (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the C-terminal region of human occludin (GeneID: 4950), conjugated to KLH. The corresponding sequence is highly conserved in rat (89% sequence identity) and in mouse (84% sequence identity) occludin. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Occludin specifically recognizes human and dog occludin. The antibody may be used in several immunochemical techniques including immunoblotting (~65 kDa), immunofluorescence and immunohistochemistry. Detection of the occludin band by immunoblotting is specifically inhibited by the occludin immunizing peptide.

Occludin is an integral membrane phosphoprotein specifically associated with tight junctions (TJs) of epithelial and endothelial cells. It plays a role in the TJ barrier structure and function.[1,2] Occludin is a tetraspan membrane protein that forms two extracellular loops flanked by cytoplasmic N- and C-terminal domains. It directly interacts with TJ-associated peripheral membrane protein ZO-1.[3] Expression of occludin is often highly restricted to specific regions of tissues, including epithelial cells of the skin, intestine and stomach.[4,5] Occludin associates with many signal transduction molecules, suggesting a more broad range of biological roles. Expression of occludin is upregulated in MDCK cells upon TGFβ stimulation, and is required during epithelial-to-mesenchymal transitions. Occludin has been shown to regulate the actin cytoskeleton organization and may be involved in the directional migration of epithelial cells.[6] Occludin has been shown to be highly phosphorylated at Ser/Thr residues and selectively localized at TJ. Occludin phosphorylation at Ser^{408} by CK2 has been shown to regulate TJ protein interactions and barrier fuction.[6]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1.5-3.0 µg/mL is recommended using extracts of Caco-2 cells.

Immunofluorescence: a working concentration of 1-2 µg/ml is recommended using MDCK cells.

Immunohistochemistry: a working concentration of 10-20 µg/ml is recommended using formalin-fixed, paraffin-embedded human colon.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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