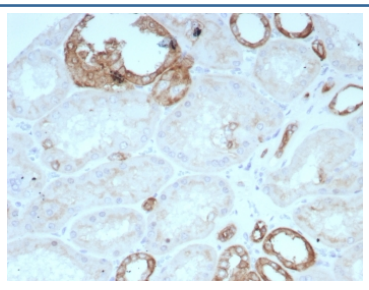
OCLN Antibody Recombinant Mouse MAb / Occludin [clone rOCLN/8776] (V5087)

Catalog No.	Formulation	Size
V5087-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5087-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5087SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

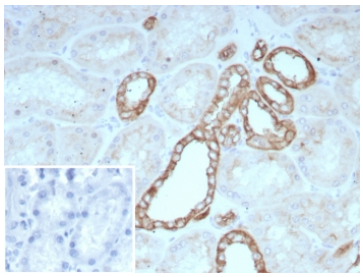
Recombinant | MOUSE MONOCLONAL

Bulk quote request

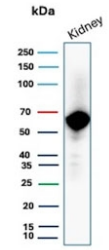
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rOCLN/8776
Purity	Protein A/G affinity
UniProt	Q16625
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This OCLN antibody is available for research use only.



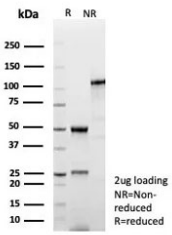
Immunohistochemistry of OCLN antibody in human kidney tissue. The recombinant mouse mAb clone rOCLN/8776 demonstrates membranous HRP-DAB brown staining along renal tubular epithelial cell borders, consistent with tight junction localization of Occludin. Signal is concentrated at apical lateral cell-cell junctions within tubular structures, while surrounding interstitial tissue shows minimal background staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to incubation.



IHC staining of FFPE human kidney tissue with OCLN antibody (clone rOCLN/8776). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Western blot analysis of OCLN antibody in human kidney tissue lysate. The recombinant mouse mAb clone rOCLN/8776 detects a prominent band at approximately 59 kDa, consistent with the predicted molecular weight of Occludin. The observed band pattern aligns with expected endogenous OCLN expression in renal epithelial tissue and supports specific detection of the tight junction-associated protein in human kidney lysate.



SDS-PAGE analysis of purified, BSA-free OCLN antibody (clone rOCLN/8776) as confirmation of integrity and purity.

Description

OCLN antibody recognizes Occludin, a four-pass transmembrane tight junction protein encoded by the OCLN gene that is essential for epithelial and endothelial barrier integrity. OCLN Antibody Recombinant Mouse MAb is designed to detect this junctional protein involved in regulating paracellular permeability and maintaining apical-basal polarity in organized tissues. Occludin localizes predominantly to the plasma membrane at tight junction complexes, where it forms continuous belt-like structures at cell-cell borders and interacts with claudins, TJP1, and the actin cytoskeleton.

Occludin antibody, also referred to in the literature as OCLN antibody and tight junction Occludin antibody, targets a structural component widely expressed in epithelial tissues including intestine, kidney, lung, and liver, as well as in endothelial barriers such as the blood-brain barrier. Within cells, Occludin is concentrated at apical junctional complexes and plays a central role in controlling selective permeability between adjacent cells. Redistribution or reduced expression of Occludin is commonly associated with increased barrier permeability and tissue injury.

Structurally, Occludin contains four transmembrane domains, two extracellular loops, and cytoplasmic N-terminal and C-terminal regions. The C-terminal cytoplasmic domain is critical for tight junction assembly and interaction with scaffolding proteins such as TJP1. Post-translational modifications including phosphorylation regulate Occludin trafficking, tight junction stability, and barrier function. Altered phosphorylation status can lead to internalization or fragmentation of junctional complexes, contributing to inflammatory and ischemic barrier dysfunction.

Changes in OCLN expression have been implicated in inflammatory bowel disease, acute lung injury, renal ischemia-reperfusion injury, and blood-brain barrier disruption. In cancer biology, remodeling of tight junctions and altered Occludin expression can influence tumor cell polarity and invasion. Because barrier breakdown is a hallmark of many pathological processes, OCLN antibody remains an important tool for studying epithelial integrity and junctional organization.

This recombinant mouse monoclonal antibody clone rOCLN/8776 targets Occludin for research applications focused on tight junction biology, epithelial barrier regulation, and tissue injury models. By enabling detection of OCLN expression

and localization, this Occludin antibody supports investigations into barrier function and junctional protein dynamics at NSJ Bioreagents.

Application Notes

Optimal dilution of the OCLN antibody should be determined by the researcher.

Immunogen

A recombinant human protein fragment (within amino acids 282-415) was used as the immunogen for the OCLN antibody.

Storage

Aliquot the OCLN antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.