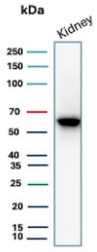
# Occludin Antibody Recombinant Rabbit MAb / OCLN [clone OCLN/8526R] (V5088)

| Catalog No. | Formulation | Size |
|---|---|---|
| V5088-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V5088-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V5088SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

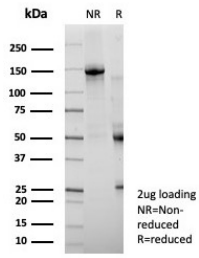
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

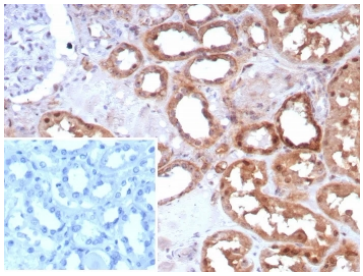
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | OCLN/8526R |
| **Purity** | Protein A/G affinity |
| **UniProt** | Q16625 |
| **Localization** | Cell Surface, Cytoplasm |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT<br>Western Blot : 2-4ug/ml |
| **Limitations** | This Occludin antibody is available for research use only. |




Western blot analysis of Occludin antibody in human kidney tissue lysate. The recombinant rabbit mAb clone OCLN/8526R detects a distinct 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 Occludin antibody (clone OCLN/8526R) as confirmation of integrity and purity.



Immunohistochemistry of Occludin antibody in human kidney tissue. The recombinant rabbit mAb clone OCLN/8526R demonstrates membranous HRP-DAB brown staining predominantly along renal tubular epithelial cell borders, consistent with tight junction localization of Occludin. Staining highlights apical lateral cell-cell junctions within tubular structures, while surrounding interstitial areas show minimal background signal. The negative control inset, using PBS in place of the primary antibody, shows no specific 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.

## Description

Occludin antibody recognizes Occludin, a tetra-span transmembrane tight junction protein encoded by the OCLN gene that plays a central role in epithelial and endothelial barrier integrity. Occludin Antibody Recombinant Rabbit MAb is designed to detect this critical junctional protein involved in regulating paracellular permeability and maintaining cell polarity. Occludin localizes primarily to the plasma membrane at tight junction complexes, where it interacts with claudins, zonula occludens proteins such as ZO-1, and the actin cytoskeleton to stabilize intercellular contacts.

OCLN antibody, also referred to as Occludin tight junction protein antibody in the literature, targets a key structural component of tight junctions widely expressed in epithelial and endothelial tissues including intestine, lung, kidney, and brain microvasculature. Within cells, Occludin is concentrated at apical cell-cell borders, forming continuous belt-like structures that regulate selective permeability. Disruption of Occludin expression or localization is associated with increased barrier permeability and loss of epithelial integrity.

Structurally, Occludin contains four transmembrane domains, two extracellular loops, and cytoplasmic N-terminal and C-terminal domains. The C-terminal region is particularly important for interaction with scaffolding proteins such as TJP1 and for anchoring tight junctions to the cytoskeleton. Post-translational modifications, especially phosphorylation, regulate Occludin trafficking, tight junction assembly, and barrier stability. Changes in phosphorylation status can lead to redistribution away from the membrane and contribute to epithelial dysfunction in inflammatory and ischemic conditions.

Altered Occludin expression has been implicated in inflammatory bowel disease, acute lung injury, renal injury, and blood-brain barrier disruption. In cancer biology, tight junction remodeling and altered OCLN expression can influence tumor invasion and metastasis by modifying cell-cell adhesion properties. Because barrier dysfunction is a hallmark of numerous pathological processes, Occludin remains an important molecular marker in studies of epithelial and endothelial physiology.

This recombinant rabbit monoclonal antibody clone OCLN/8526R targets Occludin for research applications involving barrier regulation, tight junction biology, and tissue injury models. By enabling detection of OCLN expression and localization, this Occludin antibody supports investigations of epithelial integrity and permeability control at NSJ Bioreagents.

## Application Notes

Optimal dilution of the Occludin 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 Occludin antibody.

## Storage

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


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