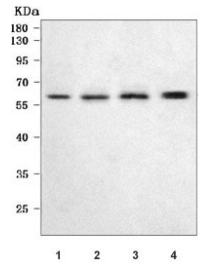
OCLN Antibody Mouse Rat / Occludin Rabbit pAb (RQ7873)

Catalog No.	Formulation	Size
RQ7873	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q61146
Applications	Western Blot : 0.5-1ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This Ocln antibody is available for research use only.



Western blot analysis of OCLN antibody in rat and mouse tissue lysates. Lanes: 1) rat liver, 2) rat RH35 cells, 3) mouse liver, and 4) mouse kidney. The rabbit polyclonal antibody detects a clear band at approximately 59 kDa across all samples, consistent with the predicted molecular weight of Occludin. Band intensity is comparable between rat and mouse tissues, supporting cross-reactivity in rodent models and confirming detection of endogenous Ocln protein in liver and kidney lysates.

Description

OCLN antibody recognizes Occludin, a tetraspan integral membrane protein encoded by the OCLN gene that is essential for tight junction formation and epithelial barrier integrity. OCLN Antibody Mouse Rat is developed to detect Occludin expression in rodent tissues commonly used in barrier biology and inflammation research. 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 regulate paracellular permeability.

OCLN antibody, also referred to as Occludin antibody in the literature, targets a key tight junction-associated protein widely expressed in epithelial and endothelial cells. Occludin plays a critical role in maintaining cell polarity and selective permeability across tissues such as intestine, lung, kidney, and blood-brain barrier endothelium. In mouse and rat models, Occludin expression is frequently evaluated in studies of inflammatory bowel disease, acute lung injury, renal ischemia-reperfusion injury, and blood-brain barrier disruption.

Structurally, Occludin contains four transmembrane domains, two extracellular loops, and cytoplasmic N-terminal and C-terminal regions. The C-terminal cytoplasmic domain is particularly important for tight junction assembly and interaction with scaffolding proteins including TJP1. Post-translational modifications such as phosphorylation regulate Occludin trafficking, tight junction stability, and barrier function. Altered phosphorylation status has been associated with increased permeability and epithelial dysfunction in multiple disease models.

In experimental systems, reduced Occludin expression or redistribution away from tight junctions is commonly used as an indicator of barrier breakdown. Conversely, restoration of Occludin membrane localization is often associated with improved epithelial integrity. Because tight junction disruption is a central feature of inflammatory, infectious, and neoplastic processes, OCLN antibody remains an important tool for studying epithelial and endothelial barrier regulation in mouse and rat research models.

This rabbit polyclonal antibody targets Occludin for research applications involving rodent tissues and experimental injury models. By enabling detection of OCLN expression and localization, this Occludin antibody supports studies focused on tight junction biology, barrier permeability, and inflammatory signaling in mouse and rat systems.

Application Notes

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

Immunogen

E. coli-derived recombinant mouse protein (amino acids E7-Y367) was used as the immunogen for the Ocln antibody.

Storage

After reconstitution, the Ocln antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.