

Store at  
-20C  
#91131**Occludin (E6B4R) Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P, IF-F, IF-IC	H M R	Endogenous	65	Rabbit IgG	#Q16625	100506658

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Frozen)  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:50  
1:100 - 1:400  
1:100 - 1:400  
1:100 - 1:400

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

For a carrier free (BSA and azide free) version of this product see product #24268.

**Specificity/Sensitivity**

Occludin (E6B4R) Rabbit mAb recognizes endogenous levels of total occludin protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val294 of human occludin protein.

**Background**

Tight junctions, or zona occludens, form a continuous barrier to fluids across the epithelium and endothelium. They function in regulation of paracellular permeability and in the maintenance of cell polarity, blocking the movement of transmembrane proteins between the apical and the basolateral cell surfaces (reviewed in 1). Tight junctions are composed of claudin and occludin transmembrane proteins, which join the junctions to the cytoskeleton (1,2). Occludin is thought to be important in the assembly and maintenance of tight junctions. Differential phosphorylation of occludin at various residues may regulate its interaction with other tight junction proteins such as ZO-1 (3). VEGF-induced phosphorylation of occludin regulates tight junction stability and vascular permeability (4). Expression of occludin as well as claudin1 is required for infection of liver cells by hepatitis C virus (HCV) (5).

**Background References**

1. Shin, K. et al. (2006) *Annu Rev Cell Dev Biol* 22, 207-35.
2. Oliveira, S.S. and Morgado-Díaz, J.A. (2007) *Cell Mol Life Sci* 64, 17-28.
3. Rao, R. (2009) *Ann N Y Acad Sci* 1165, 62-8.
4. Murakami, T. et al. (2009) *J Biol Chem* 284, 21036-46.
5. Ploss, A. et al. (2009) *Nature* 457, 882-6.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-F:** Immunofluorescence (Frozen) **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat

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