


# Anti-Occludin antibody ab31721

★★★★☆ [18 Abreviews](#) [172 References](#) [2 Images](#)

### Overview

<b>Product name</b>	Anti-Occludin antibody
<b>Description</b>	Rabbit polyclonal to Occludin
<b>Host species</b>	Rabbit
<b>Specificity</b>	New batches of this antibody are no longer guaranteed in ICC/IF, IHC-P or IHC-Fr as they have not passed our stringent batch testing criteria. Please contact customer support for any specific queries. We recommend <a href="#">ab216327</a> as an alternative for ICC/IF and IHC-P. The immunogen used to raise this antibody has 78% homology with the Mouse Occludin protein and the Rat Occludin protein. Some customers have successfully used ab31721 with Mouse/Rat lysates/tissue, however we have not been successful detecting Occludin in these species in our own testing.
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human, Recombinant fragment <b>Predicted to work with:</b> Dog, Pig 
<b>Immunogen</b>	Synthetic peptide conjugated to KLH derived from within residues 350 - 450 of Human Occludin. Read Abcam's proprietary immunogen policy (Peptide available as <a href="#">ab34440</a> .)
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

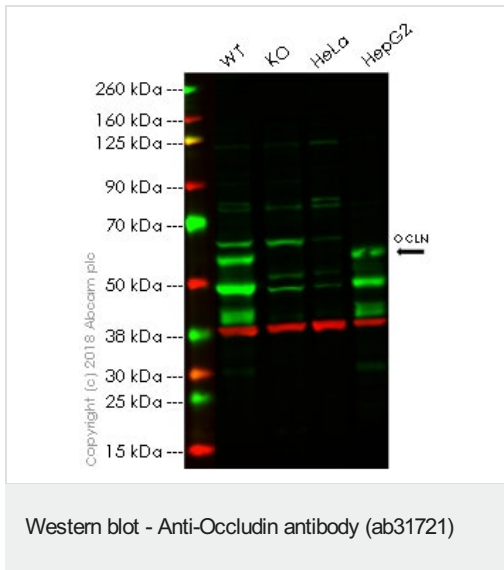
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab31721 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (5)	1/250. Detects a band of approximately 62 kDa (predicted molecular weight: 59 kDa).

## Target

<b>Function</b>	May play a role in the formation and regulation of the tight junction (TJ) paracellular permeability barrier. It is able to induce adhesion when expressed in cells lacking tight junctions.
<b>Tissue specificity</b>	Localized at tight junctions of both epithelial and endothelial cells. Highly expressed in kidney. Not detected in testis.
<b>Involvement in disease</b>	Defects in OCLN are the cause of band-like calcification with simplified gyration and polymicrogyria (BLCPMG) [MIM:251290]; also known as pseudo-TORCH syndrome. BLCPMG is a neurologic disorder with characteristic clinical and neuroradiologic features that mimic intrauterine TORCH infection in the absence of evidence of infection. Affected individuals have congenital microcephaly, intracranial calcifications, and severe developmental delay.
<b>Sequence similarities</b>	Belongs to the ELL/occludin family. Contains 1 MARVEL domain.
<b>Domain</b>	The C-terminal is cytoplasmic and is important for interaction with ZO-1. Sufficient for the tight junction localization. Involved in the regulation of the permeability barrier function of the tight junction (By similarity). The first extracellular loop participates in an adhesive interaction.
<b>Post-translational modifications</b>	Phosphorylated upon DNA damage, probably by ATM or ATR. Dephosphorylated by PTPRJ. The tyrosine phosphorylation on Tyr-398 and Tyr-402 reduces its ability to interact with TJP1.
<b>Cellular localization</b>	Membrane. Cell junction > tight junction.

## Images



**All lanes :** Anti-Occludin antibody (ab31721) at 1/250 dilution

**Lane 1 :** Wild-type HAP1 whole cell lysate at 40 µg

**Lane 2 :** OCLN (Occludin) knockout HAP1 whole cell lysate at 40 µg

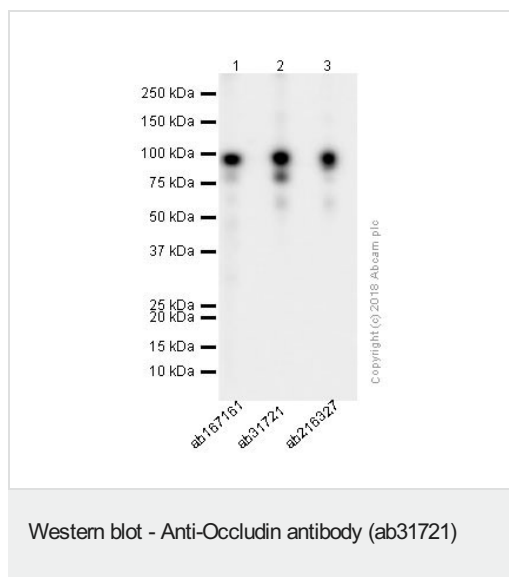
**Lane 3 :** HeLa whole cell lysate (Low Occludin expression) at 20 µg

**Lane 4 :** HepG2 whole cell lysate (High Occludin expression) at 20 µg

**Predicted band size:** 59 kDa

**Lanes 1 -4:** Merged signal (red and green). Green - ab31721 observed at 59 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab31721 was shown to recognize Occludin in wild-type HAP1 cells as signal was lost at the expected MW in OCLN (Occludin) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and OCLN (Occludin) knockout samples were subjected to SDS-PAGE. Ab31721 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/250 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



**Lane 1 :** Anti-Occludin antibody [EPR8208] ([ab167161](#)) at 1/5000 dilution

**Lane 2 :** Anti-Occludin antibody (ab31721) at 1/1000 dilution

**Lane 3 :** Anti-Occludin antibody [EPR20992] ([ab216327](#)) at 1/5000 dilution

**All lanes :** Recombinant Human Occludin protein ([ab114189](#))

Lysates/proteins at 0.025 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 59 kDa

**Observed band size:** 85 kDa

Blocking and diluting buffer: 5% NFDM/TBST.

**Exposure time:** 5.5 seconds

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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