Product Datasheet

Occludin Antibody - BSA Free
NBP1-87402

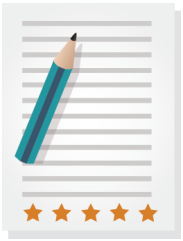
Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

Reviews: 4 Publications: 25

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-87402

Updated 2/2/2026 v.20.1



NBP1-87402

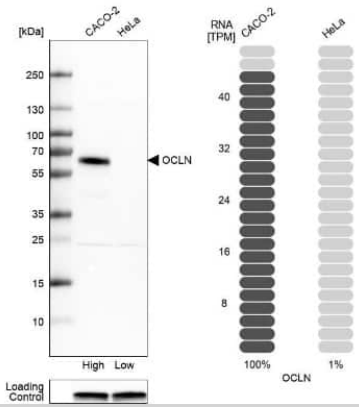
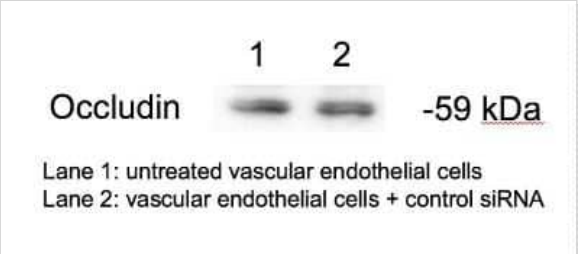
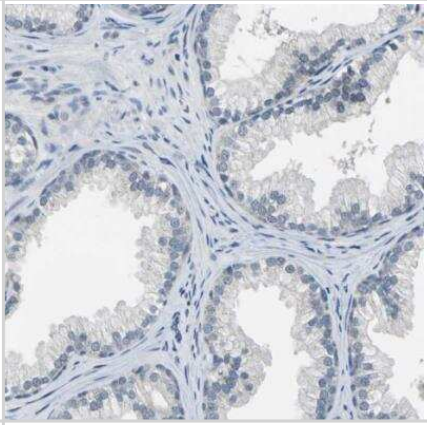
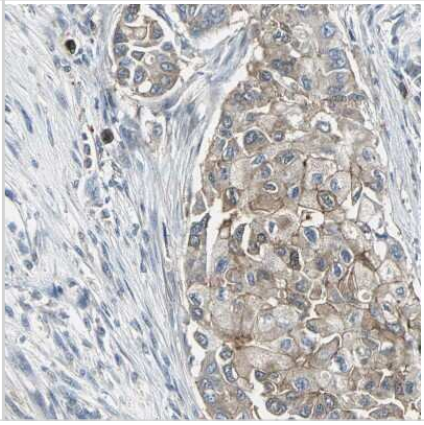
Occludin Antibody - BSA Free

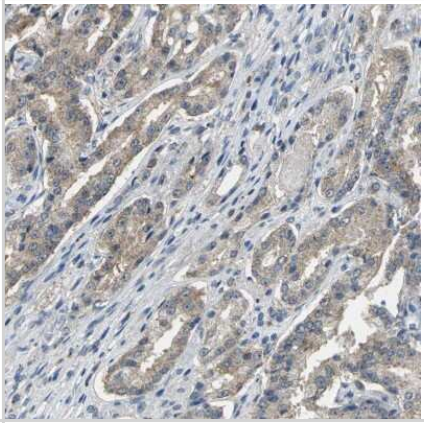
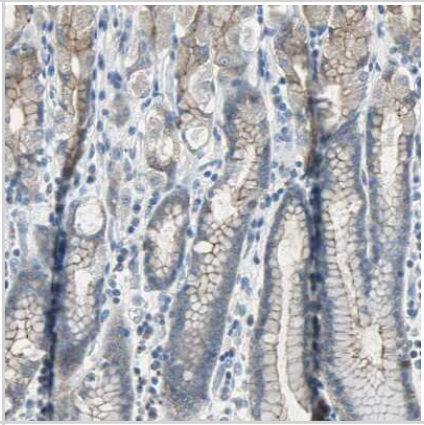
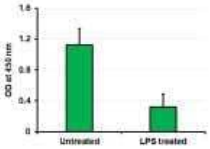
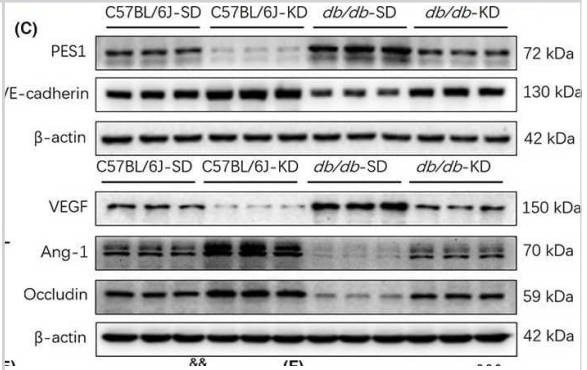
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

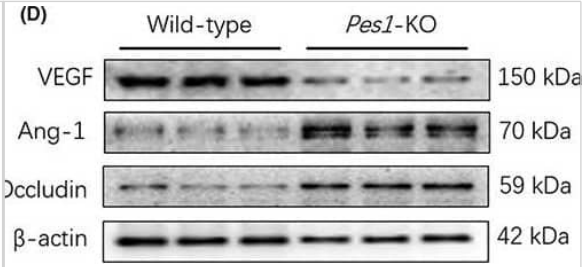
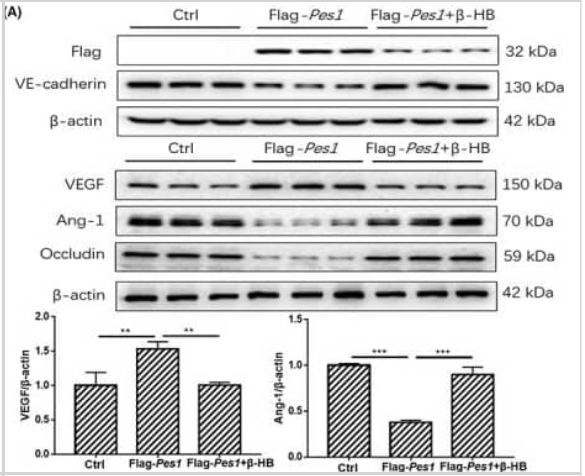
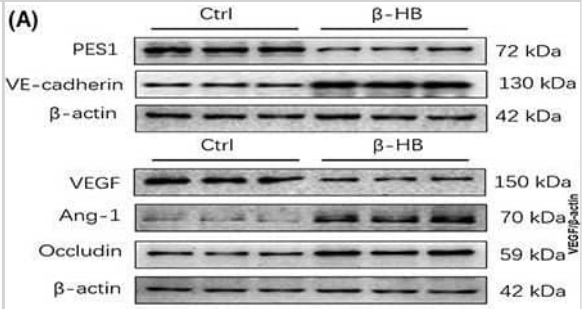
Product Description	
Description	Novus Biologicals Rabbit Occludin Antibody - BSA Free (NBP1-87402) is a polyclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-Occludin Antibody: Cited in 23 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	100506658
Gene Symbol	OCLN
Species	Human, Mouse, Rat
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 31715313). Mouse reactivity reported in (PMID: 30685438), and a verified customer review.
Marker	Tight Junctions Marker
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: DKEHIYDEQPPNVEEWVKNVSAGTQDVPSPPSDYVERVDSPMAYSSNGKVND KRFYPESSYKSTPVPEVVQELPLTSPVDDFRQPRYSSGGNFETPSKRAPAKGR AGRSKRTEQDHYETDYTTGGESCDELEED

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunohistochemistry, Knockdown Validated
Recommended Dilutions	Western Blot 0.04 - 0.4 ug/mL, ELISA Validated from a verified customer review, Immunohistochemistry 1:200 - 1:500, Immunohistochemistry-Paraffin 1:200 - 1:500, Knockdown Validated
Application Notes	Reviews and literature that use this antibody in ICC/IF are from a previous lot. This antibody is not suitable for ICC/IF usage. IHC-Paraffin, HIER pH 6 retrieval is recommended

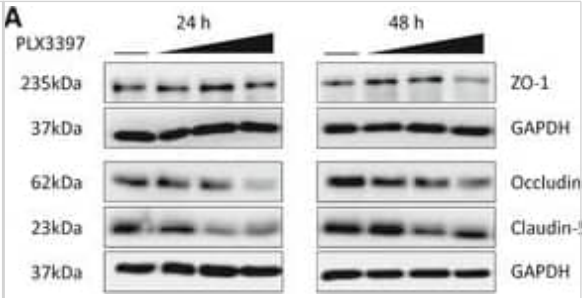
Images

Western Blot: Occludin Antibody [NBP1-87402] - Analysis in human cell line CACO-2 and human cell line HeLa.	
Western Blot: Occludin Antibody [NBP1-87402] - Lane 1: untreated vascular endothelial cells Lane 2: vascular endothelial cells + control siRNA. Primary antibody was diluted 1:1000. WB image submitted by a verified customer review.	
Immunohistochemistry-Paraffin: Occludin Antibody [NBP1-87402] - Staining of human prostate shows negative membranous positivity in glandular cells as expected.	
Immunohistochemistry-Paraffin: Occludin Antibody [NBP1-87402] - Staining of human breast cancer shows moderate membranous positivity in tumor cells.	

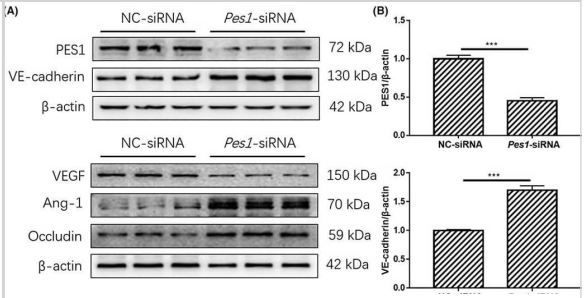
Immunohistochemistry-Paraffin: Occludin Antibody [NBP1-87402] - Staining of human prostate cancer shows moderate membranous positivity in tumor cells.	
Immunohistochemistry-Paraffin: Occludin Antibody [NBP1-87402] - Staining of human stomach shows moderate membranous positivity in glandular cells.	
ELISA: Occludin Antibody [NBP1-87402] - Occludin levels in untreated and LPS treated rat intestinal tissues. ELISA image submitted by a verified customer review.	
KD improved vascular hyperpermeability and reduced vascular stiffness and leakage in type 2 diabetic mice. (A, B) The Evans blue injection and haematoxylin and eosin staining of abdominal aorta were performed for different groups, original magnification, ×10 (haematoxylin and eosin staining). Scale bar, 50 μm (haematoxylin and eosin staining). (C–H) The protein levels of vascular PES1, VEGF, VE□cadherin, Ang□1 and Occludin were detected by Immunoblotting. Data are represented as mean +/- SEM, each assay was performed independently three times (n = 12 per group). KD (ketogenic diet), SD (standard diet). **p < 0.01 C57BL/6J□KD versus C57BL/6J□SD, ***p < 0.001 C57BL/6J□KD versus C57BL/6J□SD, #p < 0.05 db/db□KD versus db/db□SD, ##p < 0.01 db/db□KD versus db/db□SD, ###p < 0.001 db/db□KD versus db/db□SD, +p < 0.05 C57BL/J□SD versus db/db□SD, ++p < 0.01 C57BL/J□SD versus db/db□SD, +++p < 0.001 C57BL/J□SD versus db/db□SD, &&p < 0.01 C57BL/6J□KD versus db/db□KD, &&&p < 0.001 C57BL/6J□KD versus db/db□KD (anova, Student–Newman–Keuls q□test). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37060584), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Pes1 knockout in mice decreased vascular permeability. (A, B) The Evans blue injection and haematoxylin and eosin staining of abdominal aorta were conducted in different groups, original magnification, ×10 (haematoxylin and eosin staining). Scale bar, 50 μm (haematoxylin and eosin staining). (C–F) The protein levels of vascular PES1, VEGF, VE□cadherin, Ang□1 and Occludin were measured by Immunoblotting. Data were represented as mean +/- SEM, each assay was performed independently three times. **p < 0.01, ***p < 0.001 compared with control (Student's t□test). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37060584), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
β□HB treatment impaired the increment of paracellular permeability by in vitro supplementation of Pes1. (A, B) The protein levels of PES1, VEGF, VE□cadherin, Ang□1 and Occludin in MVECs were detected by immunoblotting after Flag□Pes1 plus β□HB treatment. (C, D) Shown are immunofluorescence images of Flag□Pes1 plus β□HB□treated MVECs for Occludin and VE□cadherin expression and localizations, scale bar represents 20 μm. The nuclei were stained with DAPI. (E) Exhibited is the paracellular permeability in the cultured MVECs in different groups. Data were represented as mean +/- SEM, each experiment was performed independently three times. **p < 0.01, ***p < 0.001 compared with control (anova, Student–Newman–Keuls q□test). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37060584), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
β□HB treatment reduced vascular endothelial paracellular permeability in vitro. (A, B) The protein levels of PES1, VEGF, VE□cadherin, Ang□1 and Occludin in MVECs were detected by immunoblotting after 2 mM β□HB treatment for 24 h. (C–H) Displayed are immunofluorescence images of β□HB□treated MVECs for VE□cadherin, VEGF and PES1 expression and localizations, scale bar represents 20 μm. The nuclei were stained with DAPI. (I) Exhibited is the paracellular permeability in the cultured MVECs under different treatments. Ctrl (Control), β□HB (β□hydroxybutyric acid). Data were represented as mean +/- SEM, each experiment was performed independently three times. **p < 0.01, ***p < 0.001 compared with control (Student's t□test). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37060584), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

PLX3397 reduces tight junction expressionA, BWestern blot of lysates from PLX3397 treated b.End3 cells for tight junction proteins ZO□1, Occludin and Claudin□5 (A). The horizontal line indicates untreated cells, with increasing PLX3397 concentrations (5, 10, 20 μM). Corresponding densitometry is given in (B). (One□way ANOVA with Dunnett's post□test for multiple comparisons, *P < 0.05, **P < 0.005, ***P < 0.0005, n = 3 independent experiments, error bars indicate SEM)CGene expression changes at 24 (top) and 48 (bottom) h in PLX3397 treated b.End3 cells shown by qPCR for Tjp1, Ocln and Cldn5 (*P < 0.05, **P < 0.006, n = 3 independent experiments one□way ANOVA with Dunnett's post□test, error bars indicate SEM).DqPCR analysis of tight junction and CSF□1R pathway gene expression changes at 24 h in PLX3397 treated MBECs (one□way ANOVA with Dunnett's post□test for multiple comparisons, **P < 0.009, n = 3 independent experiments, error bars indicate SEM).EFITC□4kDA transwell permeability assay of primary mouse microvascular endothelial cells (MBECs) treated for 24 h with PLX3397 at indicated doses (one□way ANOVA with Dunnett's correction, n = 3 technical replicates for flux assay, one□way ANOVA with Dunnett's post□test for multiple comparisons, **P = 0.0012, error bars indicate SEM). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/33350588), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



In vitro knockdown of Pes1 lowered the paracellular permeability of MVECs. (A, B) The protein levels of PES1, VEGF, VE□cadherin, Ang□1 and Occludin in MVECs were detected by immunoblotting after Pes1□siRNA treatment. (C, D) Shown are immunofluorescence images of Pes1□siRNA□treated MVECs for Occludin and VE□cadherin expression and localizations, scale bar represents 20 μm. The nuclei were stained with DAPI. (E) Exhibited is the paracellular permeability in the cultured MVECs in different groups. Data were represented as mean +/- SEM, each experiment was performed independently three times. **p < 0.01, ***p < 0.001 compared with control (Student's t□test). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37060584), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Patterson L, Allen J, Posey I et al. Glucosylceramide production maintains colon integrity in response to Bacteroides fragilis toxin-induced colon epithelial cell signaling FASEB J 2020-10-13 [PMID: 33047400] (Immunocytochemistry/ Immunofluorescence, Human)

Kansakar U, Gambardella J, Varzideh F et al. miR-142 Targets TIM-1 in Human Endothelial Cells: Potential Implications for Stroke, COVID-19, Zika, Ebola, Dengue, and Other Viral Infections International Journal of Molecular Sciences 2022-09-06 [PMID: 36142146] (Immunocytochemistry/ Immunofluorescence, Human)

Pretorius L, Smith C. Aspalathus linearis (Rooibos) and Agmatine May Act Synergistically to Beneficially Modulate Intestinal Tight Junction Integrity and Inflammatory Profile Pharmaceuticals (Basel) 2022-09-01 [PMID: 36145318] (Immunocytochemistry/ Immunofluorescence, Human)

Greene C, Rebergue N, Fewell G et Al. NX210c drug candidate peptide strengthens mouse and human blood-brain barriers Fluids Barriers CNS 2024-09-27 [PMID: 39334382]

Lesha Pretorius, Carine Smith Green rooibos (Aspalathus linearis) promotes gut health: insight into mechanisms. Journal of ethnopharmacology 2023-11-21 [PMID: 37923252]

Marika Haderer, Philip Neubert, Eva Rinner, Annika Scholtis, Lucile Broncy, Heidi Gschwendtner, Arne Kandulski, Vlad Pavel, Alexander Mehrl, Christoph Brochhausen, Sophie Schlosser, Karsten Gülow, Claudia Kunst, Martina Müller Novel pathomechanism for spontaneous bacterial peritonitis: disruption of cell junctions by cellular and bacterial proteases Gut 2022-03-01 [PMID: 33707230]

Brychka D, Ayala-Nunez N, Bare Y et al. Targeting monocytic Occludin impairs monocyte transmigration and HIV neuroinvasion bioRxiv 2023-09-12 (ICC/IF, Human)

Hamade DF, Epperly MW, Fisher R et al. Release of Interferon-? (IFN-?) from Probiotic Limosilactobacillus reuteri-IFN-? (LR-IFN-?) Mitigates Gastrointestinal Acute Radiation Syndrome (GI-ARS) following Whole Abdominal Irradiation Cancers 2023-03-08 [PMID: 36980556] (IHC, Mouse)

Werawatganon, D;Vivatvakin, S;Somanawat, K;Tumwasorn, S;Klaikeaw, N;Siriviriyakul, P;Chayanupatkul, M; Effects of probiotics on pancreatic inflammation and intestinal integrity in mice with acute pancreatitis BMC complementary medicine and therapies 2023-05-22 [PMID: 37217916] (IHC-P, Mouse)

Wang S, Zhou J, Lu J et al. A ketogenic diet improves vascular hyperpermeability in type 2 diabetic mice by downregulating vascular pescadillo1 expression Journal of cellular and molecular medicine 2023-04-15 [PMID: 37060584] (WB, Mouse)

Details:
1:500 WB dilution

Li Y, Wei JY, Liu H et al. An oxygen-adaptive interaction between SNHG12 and occludin maintains blood-brain barrier integrity Cell reports 2022-04-12 [PMID: 35417709] (ICC/IF, Human)

Pretorius L, Van Staden ADP, Van der Merwe JJ et al. Alterations to microbial secretome by estrogen may contribute to sex bias in irritable bowel syndrome Inflammopharmacology 2022-01-13 [PMID: 35022916]

More publications at http://www.novusbio.com/NBP1-87402

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Products Related to NBP1-87402

NBP1-87402PEP	Occludin Recombinant Protein Antigen
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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