Product Datasheet

Tight Junction Protein 1 Antibody - BSA Free
NBP1-85047

Unit Size: 0.1 ml

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

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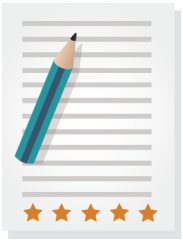
Updated 4/13/2025 v.20.1



NBP1-85047

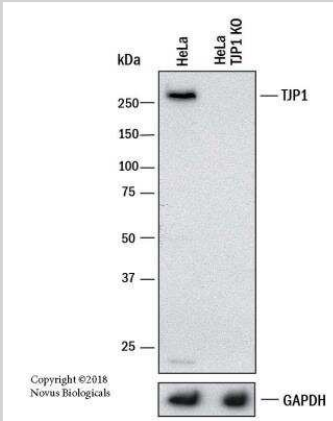
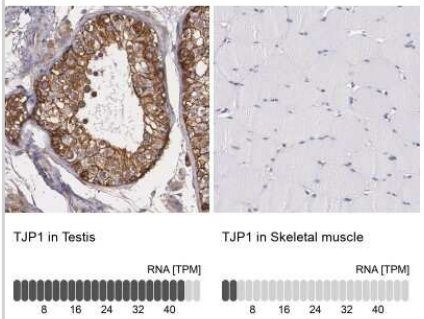
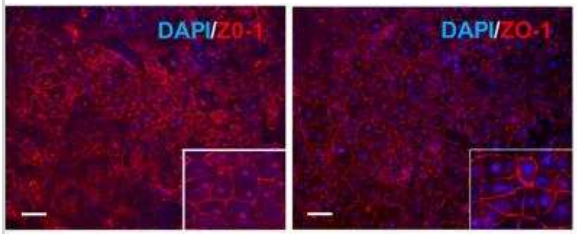
Tight Junction Protein 1 Antibody - BSA Free

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	Immunogen affinity purified
Buffer	PBS (pH 7.2), 40% Glycerol

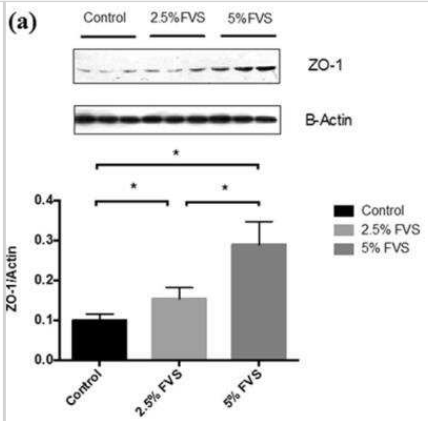
Product Description	
Host	Rabbit
Gene ID	7082
Gene Symbol	TJP1
Species	Human, Mouse, Rat, Porcine
Reactivity Notes	Porcine and mouse reactivity reported from verified customer reviews.
Marker	Intercellular Junctions/Tight Junction Marker
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: RKLYERSHKLRKNNHHLFTTTINLNSMNDGWYGALKEAIQQQQNQLVWVSEG KADGATSDDLDLHDDRLSYLSAPGSEYSMYSTDSRHTSDYEDTDTEGGAYTD QELDETLNDEVGTPPESAITRSSEPVRED

Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Simple Western, Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:200 - 1:500
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HeLa, separated by Size, antibody dilution of 1:20, apparent MW was 257 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

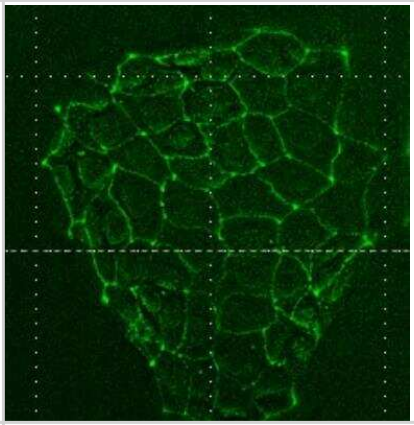
Images

Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and TJP1 knockout (KO) HeLa cell line. PVDF membrane was probed with 1:200 of Rabbit Anti-Human TJP1 Polyclonal Antibody (Catalog # NBP1-85047) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog #HAF008). Specific band was detected for TJP1 at approximately 260 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions.	
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining in human testis and skeletal muscle tissues. Corresponding TJP1 RNA-seq data are presented for the same tissues.	
Simple Western: Tight Junction Protein 1 Antibody [NBP1-85047] - Simple Western lane view shows a specific band for TJP1 in 0.2 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 66-440 kDa separation system.	
Immunohistochemistry: Tight Junction Protein 1 Antibody [NBP1-85047] - Representative images of DCFA excretion at the biliary poles of corr-FH-iHeps. Left image FH-i, right image Corr-FH-iHeps. All images were taken with 10x objective, z-stacks of xy sections of the cells were acquired with an epifluorescence microscope (Nikon Elipse) and analyzed with ImageJ software. Image collected and cropped by CiteAb from the following publication (https://stemcellres.biomedcentral.com/articles/10.1186/s13287-019-1342-6) licensed under a CC-BY license.	

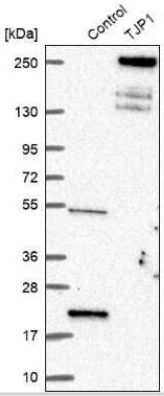
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Effects of dietary Flammulina velutipes stem waste (FVS) inclusion on the relative expression of tight junction proteins in jejunum of growing pigs. a The relative expression of ZO-1 in jejunum of growing pigs fed control and 2.5% or 5% FVS diets. Values are means (3 pigs per treatment) with standard errors represented by vertical bars. *P < 0.05, **P < 0.01. Image collected and cropped by CiteAb from the following publication (https://jasbsci.biomedcentral.com/articles/10.1186/s40104-020-00449-y) licensed under a CC-BY license.



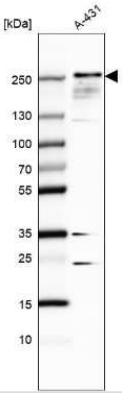
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Rat epithelial cells stained positively with Tight Junction Protein 1. Primary antibody at 1:100. Secondary antibody: goat anti-rabbit-Alexa 488 conjugated at 1:500. ICC/IF image submitted by a verified customer review.



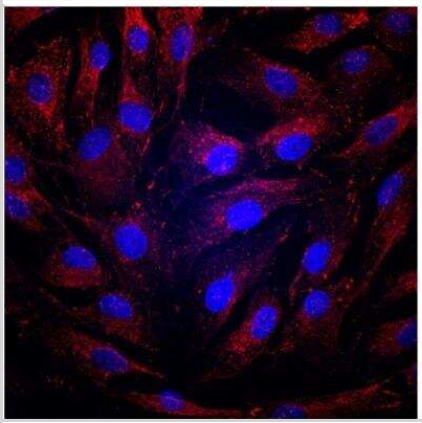
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Analysis in control (vector only transfected HEK293T lysate) and TJP1 over-expression lysate (Co-expressed with a C-terminal myc-DDK tag (3.1 kDa) in mammalian HEK293T cells).



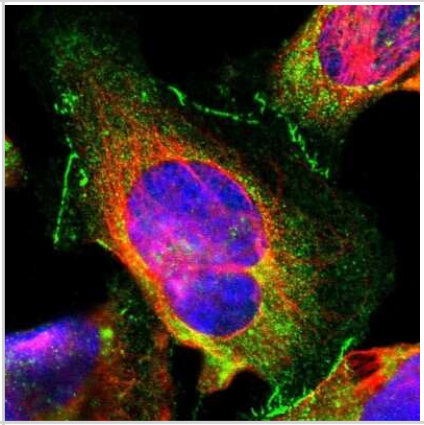
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Analysis in human cell line A-431.



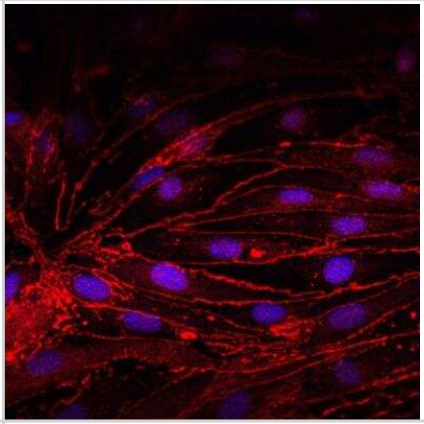
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of Pig trabecular meshwork cells. ICC/IF image submitted by a verified customer review.



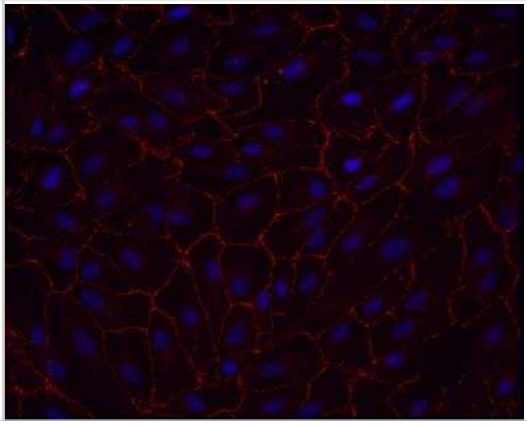
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human cell line U-2 OS shows localization to cytosol & cell junctions. Antibody staining is shown in green.

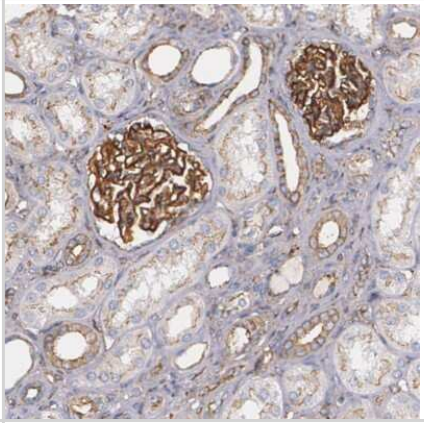
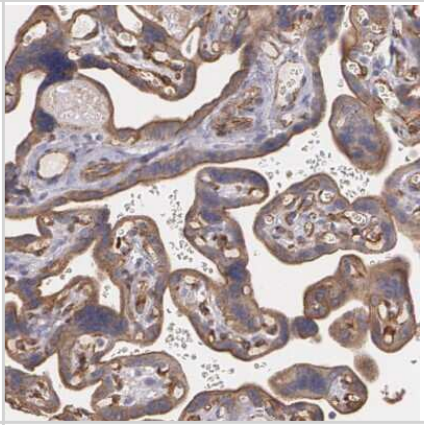
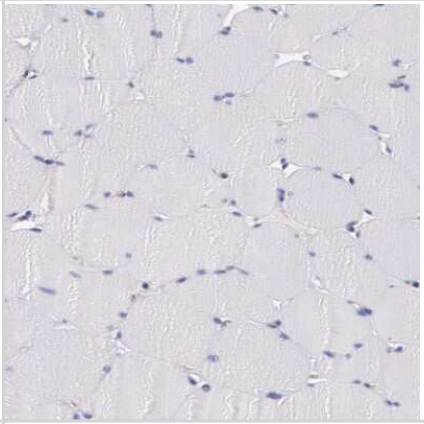
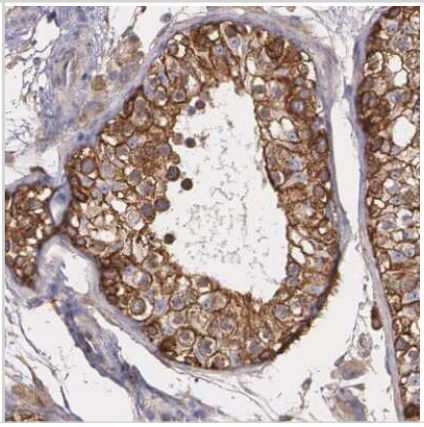


Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - The primary mouse lung endothelial cells were fixed, permeabilized and stained with 1:100 diluted anti-ZO-1 ab for overnight. Samples were washed and subsequently incubated with 1:500 diluted Alexa Fuor 546 at room temperature for 1 hour. ICC/iF image submitted by a verified customer reveiw.

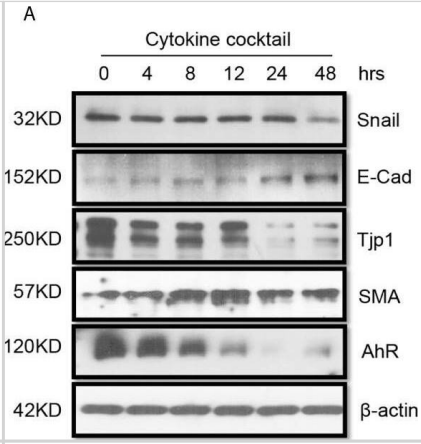


Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Monolayer of Human ARPE-19 cells on a glass substrate. Tight Junction Protein 1 staining in red. ICC/IF image submitted by a verified customer review.

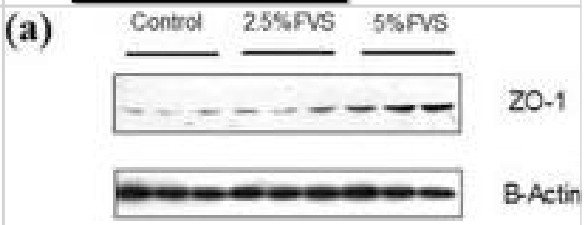


Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human kidney shows strong membranous positivity in cells in glomeruli.	
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human placenta shows moderate membranous positivity in trophoblastic cells.	
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human skeletal muscle shows no membranous positivity in myocytes as expected.	
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human testis shows moderate to strong membranous positivity in cells in seminiferous ducts.	

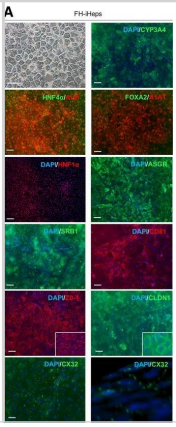
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Western blot analysis of function protein expression on primary human renal cortical epithelial cells challenged with cytokines. Primary human renal tubular epithelial cells are challenged with cytokine cocktail (15nM IFNγ, 6nM TNFα, & 3nM IL1β). (A, B) Expression of Snail, E-Cad, TJP1, SMA. AhR, IDO, KMO, KY, MHCI & II. (C, D) Densitometric quantitation of protein in (A, B). All Western blots are representative of at least three independent experiments. *P < 0.05, ***P < 0.0001 versus to cells without treatment, analysis is multiple t-tests, pairwise comparison of individual time-point to control indicated same p-value. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/34305900), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

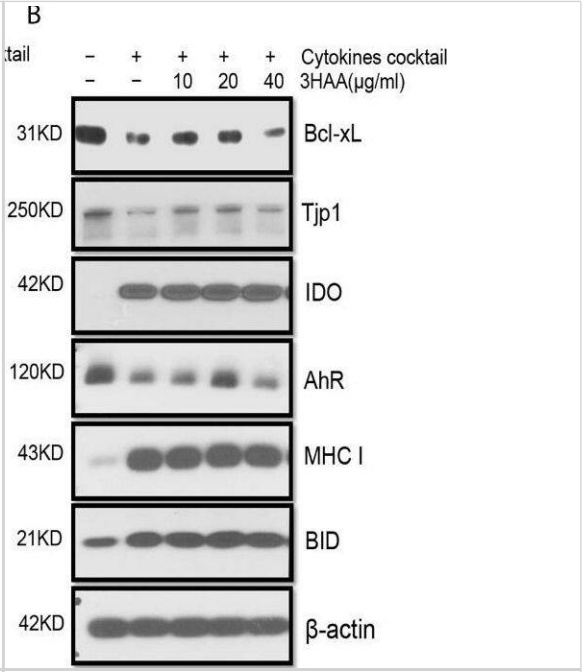
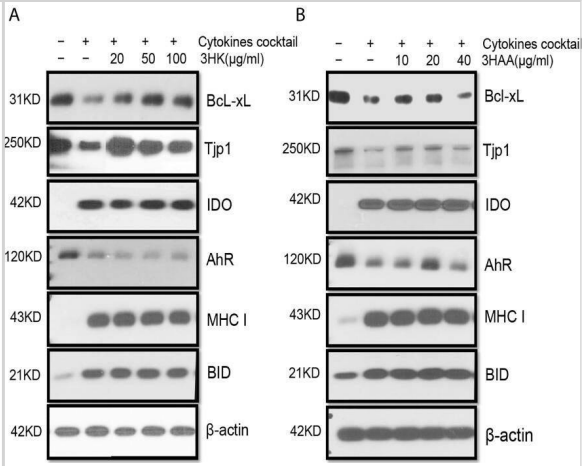


Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Effects of dietary Flammulina velutipes stem waste (FVS) inclusion on the relative expression of tight junction proteins in jejunum of growing pigs. a The relative expression of ZO-1 in jejunum of growing pigs fed control & 2.5% or 5% FVS diets. b The relative expression of occludin in jejunum of growing pigs fed control & 2.5% or 5% FVS diets. c The relative expression of claudin-1 in jejunum of growing pigs fed control & 2.5% or 5% FVS diets. Values are means (3 pigs per treatment) with standard errors represented by vertical bars. *P < 0.05, **P < 0.01 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32391146), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Differentiation of FH- & corr-FH-iPSCs into hepatocytes. a Representative pictures of cell morphology & immunostainings of the indicated markers at day 25 of differentiation. Scale bars: 50 µm. b Representative images of DCFA excretion at the biliary poles of corr-FH-iHeps. All images were taken with × 10 objective, z-stacks of xy sections of the cells were acquired with an epifluorescence microscope (Nikon Elipse) & analyzed with ImageJ software. Arrowheads indicate bile canaliculi Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31358055), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Protective role of 3HK & 3HAA in TEC stimulated with cytokines. Primary human renal TEC pre-incubated with different doses of 3HK or 3HAA overnight; the cells are challenged with the cytokine cocktail (15 nM IFNγ, 6 nM TNFα, & 3 nM IL1β) for 24 h; protein expression was assayed with Western blot: (A, B) 3HK & 3HAA cannot reverse IDO, MHC I, BID expression induced by cytokines. 3HK & 3HAA effectively restore Bcl-xL & Tjp1 expression. 3HAA shows its different function in up-regulation of AhR expression in TEC in inflammatory conditions. (C) Qualification of protein expression in TEC challenged with cytokine cocktail in the presence of 3HK. ***P < 0.0001 versus cell treated with Cyto. (D) Qualification of protein expression in TEC challenged with cytokine cocktail in the presence of 3HAA. ***P < 0.0001, ****P < 0.00001 versus cell treated with Cyto. Pairwise comparison of individual dose to control indicated same p-value. All Western blots are representative of three independent experiments; analysis is multiple one-way ANOVA. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/34305900), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Protective role of 3HK & 3HAA in TEC stimulated with cytokines. Primary human renal TEC pre-incubated with different doses of 3HK or 3HAA overnight; the cells are challenged with the cytokine cocktail (15 nM IFNγ, 6 nM TNFα, & 3 nM IL1β) for 24 h; protein expression was assayed with Western blot: (A, B) 3HK & 3HAA cannot reverse IDO, MHC I, BID expression induced by cytokines. 3HK & 3HAA effectively restore Bcl-xL & Tjp1 expression. 3HAA shows its different function in up-regulation of AhR expression in TEC in inflammatory conditions. (C) Qualification of protein expression in TEC challenged with cytokine cocktail in the presence of 3HK. ***P < 0.0001 versus cell treated with Cyto. (D) Qualification of protein expression in TEC challenged with cytokine cocktail in the presence of 3HAA. ***P < 0.0001, ****P < 0.00001 versus cell treated with Cyto. Pairwise comparison of individual dose to control indicated same p-value. All Western blots are representative of three independent experiments; analysis is multiple one-way ANOVA. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/34305900), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Manon Boul, Nassima Benzoubir, Antonietta Messina, Rasta Ghasemi, Ismail Ben Mosbah, Jean-Charles Duclos-Vallée, Anne Dubart-Kupperschmitt, Bruno Le Pioufle A versatile microfluidic tool for the 3D culture of HepaRG cells seeded at various stages of differentiation Scientific Reports 2021-07-07 [PMID: 34234159]

Rion J Wendland, Budd A Tucker, Kristan S Worthington Influence of Substrate Stiffness on iPSC-Derived Retinal Pigmented Epithelial Cells Stem Cells Translational Medicine 2024-06-01 [PMID: 38560893]

Rosu GC, Mateescu VO, Simionescu A et al. Subtle vascular and astrocytic changes in the brain of coronavirus disease 2019 (COVID-19) patients European Journal of Neurology 2022-12-01 [PMID: 36056566] (Block/Neutralize)

Spindler LM, Feuerhake A, Ladel S et al. Nano-in-Micro-Particles Consisting of PLGA Nanoparticles Embedded in Chitosan Microparticles via Spray-Drying Enhances Their Uptake in the Olfactory Mucosa Frontiers in Pharmacology 2021-09-01 [PMID: 34539414] (Immunohistochemistry)

Ji S, You Y, Peng B et al. Multi-omics analysis reveals the metabolic regulators of duodenal low-grade inflammation in a functional dyspepsia model Frontiers in Immunology 2022-08-24 [PMID: 36091013] (Western Blot)

Su C, Liu S, Ma X et al. Decitabine attenuates dextran sodium sulfate?induced ulcerative colitis through regulation of immune regulatory cells and intestinal barrier International Journal of Molecular Medicine 2020-05-18 [PMID: 32468024] (Immunocytochemistry/ Immunofluorescence)

Yang AM, Lin CY, Liu SH et al. Saccharomyces Boulardii Ameliorates Non-alcoholic Steatohepatitis in Mice Induced by a Methionine-Choline-Deficient Diet Through Gut-Liver Axis Frontiers in Microbiology 2022-06-23 [PMID: 35814685] (Immunohistochemistry)

Cheng Y, Li J, Zhang X et al. Protective Effect of Qingchang Wenzhong Decoction on Colitis and Colitis-Related Carcinogenesis by Regulating Inflammation and Intestinal Fibrosis Journal of inflammation research 2023-04-07 [PMID: 37056910] (IHC-P, Mouse)

Chen Y, Tristan CA, Lu C et al. A Versatile Polypharmacology Platform Promotes Cytoprotection and Viability of Human Pluripotent and Differentiated Cells Nat Methods 2021-05-04 [PMID: 33941937] (Simple Western)

Fu Q, Lin Q, Chen D et al. beta-defensin 118 attenuates inflammation and injury of intestinal epithelial cells upon enterotoxigenic Escherichia coli challenge BMC veterinary research 2022-04-19 [PMID: 35440001] (WB, ICC/IF)

Song K, Zeng X, Xie X et al. Dl-3-n-butylphthalide attenuates brain injury caused by cortical infarction accompanied by cranial venous drainage disturbance Stroke and vascular neurology 2022-01-31 [PMID: 35101948] (WB, Rat)

Lassiter R, Merchen Td, Fang X, Wang Y Protective Role of Kynurenine 3-Monooxygenase in Allograft Rejection and Tubular Injury in Kidney Transplantation Frontiers in immunology 2021-07-07 [PMID: 34305900] (IHC-P)

More publications at http://www.novusbio.com/NBP1-85047

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Products Related to NBP1-85047

NBP1-85047PEP	Tight Junction Protein 1 Recombinant Protein Antigen
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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