

Product Datasheet

Tight Junction Protein 1 Antibody NBP1-85047

Unit Size: 0.1 ml

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

www.novusbio.com



technical@novusbio.com

Reviews: 5 **Publications: 18**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-85047

Updated 12/20/2023 v.20.1

Earn rewards for product
reviews and publications.

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NBP1-85047



NBP1-85047

Tight Junction Protein 1 Antibody

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

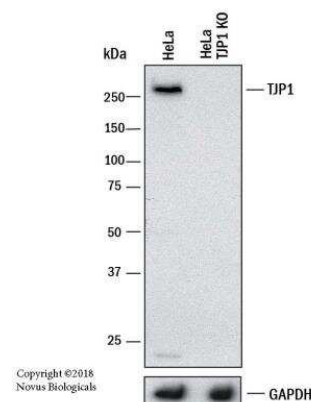
Product Description	
Host	Rabbit
Gene ID	7082
Gene Symbol	TJP1
Species	Human, Mouse, Rat, Porcine
Reactivity Notes	Porcine and mouse reactivity reported from verified customer reviews.
Marker	Intercellular Junctions/Tight Junction Marker
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: RKLYERSHKLKNNHHLFTTTINLNSMNDGWYGALKEAIQQQNQLVWVSEG KADGATSDDLHLHDDRSLYSAPGSEYSMYSTDSRHTSDYEDTDTEGGAYTD 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. Separated by Size-Wes, Sally Sue/Peggy Sue.

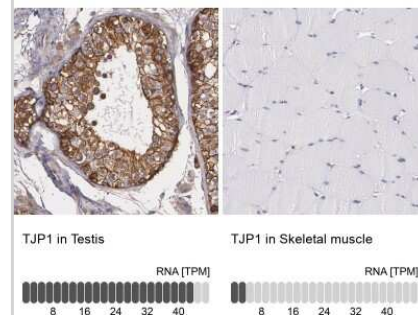


Images

Knockout Validated: 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.



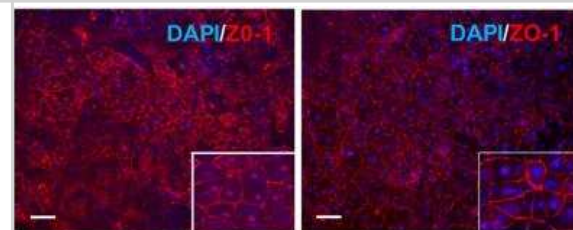
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining in human testis and skeletal muscle tissues. Corresponding TJP1 RNA-seq data are presented for the same tissues.



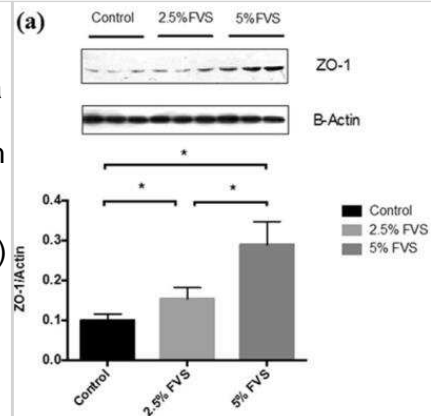
Simple Western: Tight Junction Protein 1 Antibody [NBP1-85047] - Simple Western lane view shows a specific band for TJP1 in 0.2 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 66-440 kDa separation system.



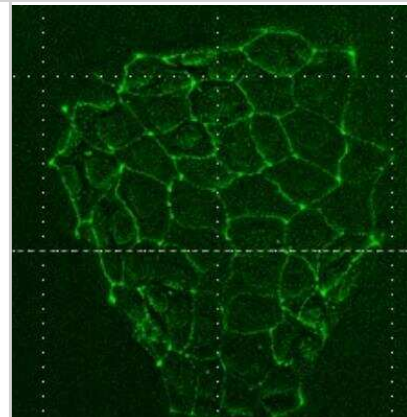
Immunohistochemistry: Tight Junction Protein 1 Antibody [NBP1-85047] - Representative images of DCFA excretion at the biliary poles of corr-FH-iHeps. Left image FH-i, right image Corr-FH-iHeps. All images were taken with 10x objective, z-stacks of xy sections of the cells were acquired with an epifluorescence 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.



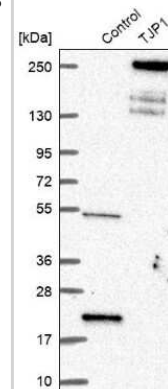
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Effects of dietary *Flammulina velutipes* stem waste (FVS) inclusion on the relative expression of tight junction proteins in jejunum of growing pigs. a The relative expression of ZO-1 in jejunum of growing pigs fed control and 2.5% or 5% 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.



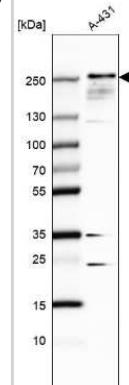
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Rat epithelial cells stained positively with Tight Junction Protein 1. Primary antibody at 1:100. Secondary antibody: goat anti-rabbit-Alexa 488 conjugated at 1:500. ICC/IF image submitted by a verified customer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



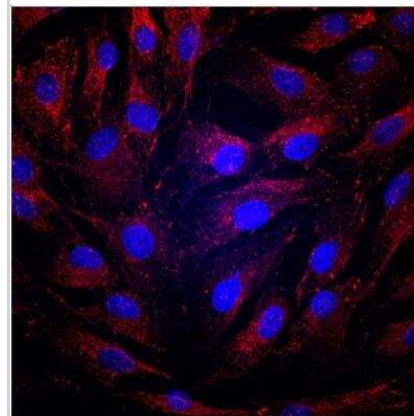
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Analysis in control (vector only transfected HEK293T lysate) and TJP1 over-expression lysate (Co-expressed with a C-terminal myc-DDK tag (3.1 kDa) in mammalian HEK293T cells).



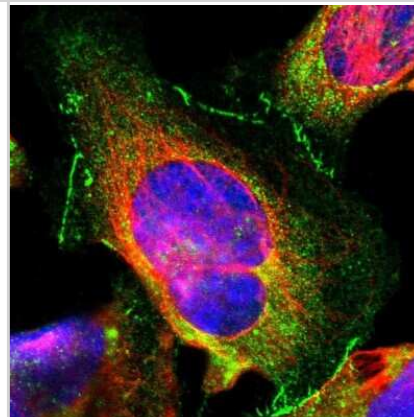
Western Blot: Tight Junction Protein 1 Antibody [NBP1-85047] - Analysis in human cell line A-431.



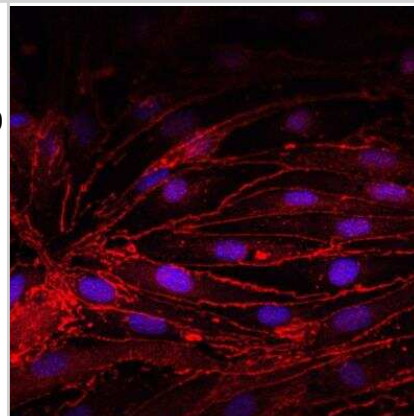
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of Pig trabecular meshwork cells. ICC/IF image submitted by a verified customer review.



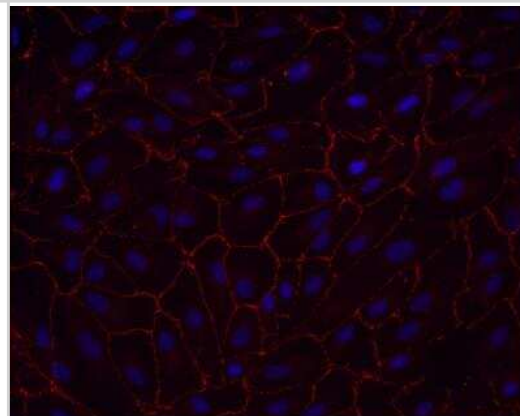
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human cell line U-2 OS shows localization to cytosol & cell junctions. Antibody staining is shown in green.



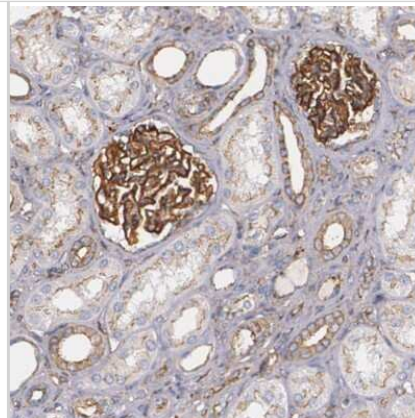
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - The primary mouse lung endothelial cells were fixed, permeabilized and stained with 1:100 diluted anti-ZO-1 ab for overnight. Samples were washed and subsequently incubated with 1:500 diluted Alexa Fluor 546 at room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



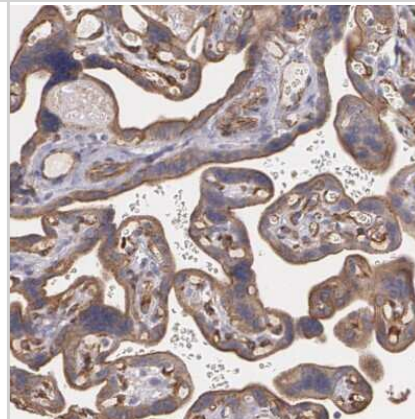
Immunocytochemistry/Immunofluorescence: Tight Junction Protein 1 Antibody [NBP1-85047] - Monolayer of Human ARPE-19 cells on a glass substrate. Tight Junction Protein 1 staining in red. ICC/IF image submitted by a verified customer review.



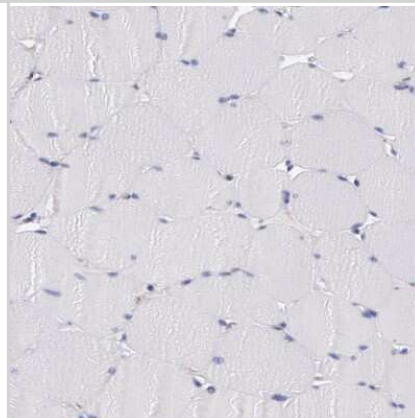
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human kidney shows strong membranous positivity in cells in glomeruli.



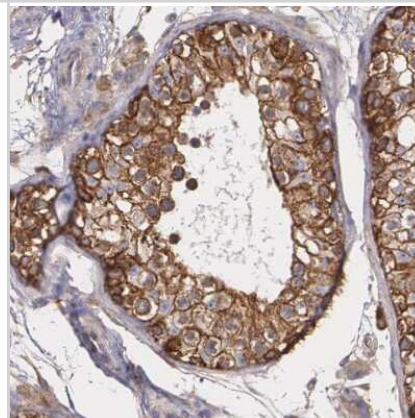
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human placenta shows moderate membranous positivity in trophoblastic cells.



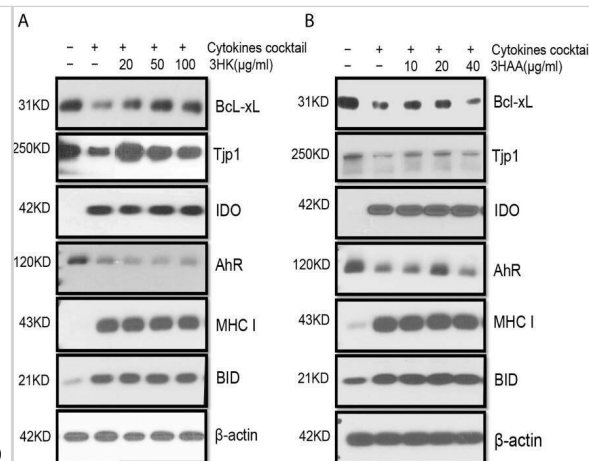
Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human skeletal muscle shows no membranous positivity in myocytes as expected.



Immunohistochemistry-Paraffin: Tight Junction Protein 1 Antibody [NBP1-85047] - Staining of human testis shows moderate to strong membranous positivity in cells in seminiferous ducts.



PAT4 interacts with Rab1A and mTORC1 on the Golgi. (a) GFP-PAT4 fusion protein (green) in HEK-293 cells shows a similar subcellular localisation to HCT116 cells on the trans-Golgi (TGN46; red). An alternative cell at higher resolution is stained with the same markers in (d). (b) Rab1A (blue) is localised primarily on the cis-Golgi, labelled by the GM130 marker (red). (c) In situ PLA (red) reveals interaction between Rab1A (blue) and GFP-PAT4 (green) primarily associated with GFP-PAT4-containing compartments (overlap between GFP-PAT4 and PLA signal is yellow in merge, top right panel; arrow). The PLA signal is also adjacent and partially overlapping with compartments on which Rab1A is concentrated in merge of Rab1A and PLA, bottom right panel. Rab1A/PAT4 PLA signals are only observed in GFP-PAT4-expressing cells (see Supplementary Figure S5B). (d) Some of the GFP-PAT4/Rab1a PLA-positive interacting compartments (red) also appear to be partly or entirely labelled by trans-Golgi network marker TGN46 (blue; arrow), but not trans-Golgi regions lacking GFP-PAT4. (e) PLA (red) reveals an interaction between mTOR (blue) and GFP-PAT4 (green) partially overlapping with GFP-PAT4-containing compartments (yellow in merges containing green and red channels, including magnified image in top right panel; arrow). In the low magnification merge image, the two upper cells not expressing GFP-PAT4 do not give a PLA signal, indicating that this assay specifically detects the GFP-PAT4/mTOR interaction. Blue and red channel merge (lower right-hand panel) reveals that mTOR staining is often in close proximity to PLA signal, but is also found in many other locations within the cell. (f) PLA (red) reveals an interaction (red) between Raptor and GFP-PAT4 (green), in and adjacent to compartments containing GFP-PAT4 (yellow overlap in merges containing green and red channels, including magnified image in top right panel; arrow and arrowheads). Blue and red channel merge (lower right-hand panel) reveals that some PLA signals are adjacent or partially colocalise with the trans-Golgi (TGN, blue; arrowheads), whereas others do not (arrow). Raptor/GFP-PAT4 PLA signals are only observed in GFP-PAT4-expressing cells (see Supplementary Figure S5C). DAPI marks the nucleus in (a) (blue) and (b–f) (white) in the merge. Confocal channels are indicated as follows in the merged images: green (G), blue (B) and red (R). Scale bars are 5 μ m. Image collected and cropped by CiteAb from the following open publication (<https://www.nature.com/articles/onc2015363>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

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] (B/N)

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] (IHC)

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] (WB)

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] (ICC/IF)

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] (IHC)

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. DI-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)

Quan W, Luo Q, Hao W et al. Haploinsufficiency of microglial MyD88 ameliorates Alzheimer's pathology and vascular disorders in APP/PS1-transgenic mice Glia 2021-05-02 [PMID: 33934399] (WB, Mouse)

Abbassi L, El-Hayek S, Carvalho KF et al. Epidermal growth factor receptor signaling uncouples germ cells from the somatic follicular compartment at ovulation Nature communications 2021-03-04 [PMID: 33664246] (ICC/IF, Mouse)

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



Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-85047

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

