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beta Catenin Polyclonal Antibody (CAT-15)

Catalog Number 71-2700

Product data sheet

Details

Size	100 µg
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Clone	CAT-15
Immunogen	A 15-amino acid synthetic peptide derived from the C-terminus of the human/mouse beta-catenin protein.
Conjugate	Unconjugated
Form	Liquid
Concentration	0.25 mg/mL
Purification	Antigen affinity chromatography
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage Conditions	-20°C

Species Reactivity

Species reactivity	Chicken, Human, Mouse, Rat, Xenopus
Published species	Dog, Avian, Rabbit, Rat, Pig, Amphibian, Human, Mouse, Not Applicable, Xenopus

Tested Applications	Dilution *
ELISA (ELISA)	0.1-1 mg/mL
Immunohistochemistry (Paraffin) (IHC (P))	1:20-1:200
Immunoprecipitation (IP)	5-10 µg
Western Blot (WB)	1-2 µg/mL
Immunocytochemistry (ICC/IF)	Assay-dependent

Published Applications

Immunocytochemistry (ICC/IF)	See 12 publications below
Immunohistochemistry (IHC)	See 7 publications below
Western Blot (WB)	See 16 publications below
ChIP assay (ChIP)	See 3 publications below
Immunohistochemistry (Paraffin) (IHC (P))	See 1 publications below
Immunoprecipitation (IP)	See 2 publications below
Miscellaneous PubMed (Misc)	See 3 publications below
Immunohistochemistry (Frozen) (IHC (F))	See 4 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

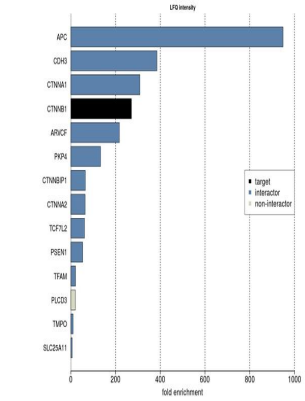
This antibody can be used to specifically immunoprecipitate the ~ 92 kDa beta-catenin protein from native cell lysates. It is suitable for use in immunoprecipitation (IP) and IP/western applications. Note that when the antibody is used for straight western blotting, cross-reactivity with a ~100 kDa protein of unknown identity is sometimes observed. Suggested positive control lysates include HeLa and A431.

Background/Target Information

Beta-catenin, an adherens junction (AJ) protein, was originally identified as a component of cell-cell adhesion structures. AJs are necessary for the creation and maintenance of epithelial cell layers by regulating cell growth and adhesion between cells. Beta-catenin interacts with the cytoplasmic domain of E-cadherin and links E-cadherin to alpha-catenin, which in turn mediates anchorage of the E-cadherin complex to the cortical actin cytoskeleton. Studies show that Beta-catenin also binds to another cytoskeletal complex containing the adenomatous polyposis coli protein and microtubules, and interacts with several signaling pathways that include tyrosine kinases, phosphatases and Wnt/Wingless. The interplay between beta-catenin, cytoskeletal complexes and signaling pathways may regulate morphogenesis. Beta-catenin is expressed in several hair follicle cell types, basal and peripheral matrix cells, and cells of the outer and inner root sheats. A pathological role of beta-catenin has been identified in pilomatrixoma (PTR), medulloblastoma (MDB), colorectal cancer (CRC), ovarian cancer, and tumor development. In the nucleus, beta-catenin serves to co activate a family of Lef/Tcf transcription factors that stimulate transcription of target genes including those encoding cyclin D and c-myc that promote cell proliferation. The influence on cell proliferation is the molecular basis for the role of beta-catenin in tumorgenesis, specifically, solid tumors of the breast, colon, liver, lung, gastric, prostate, and skin.

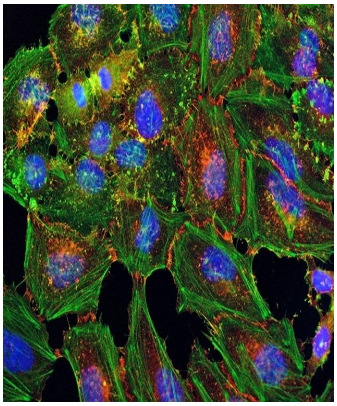
For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Product Images For beta Catenin Polyclonal Antibody (CAT-15)



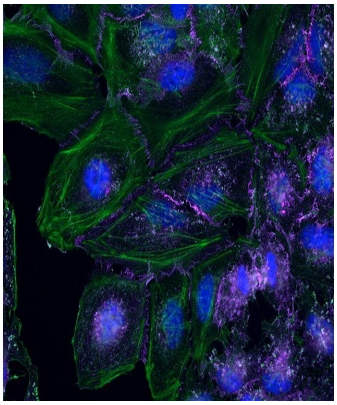
beta Catenin Antibody (71-2700)

IP-MS enrichment of CTNNB1 (LFQ intensity): CTNNB1 was enriched 271-fold from HCT116 lysate compared to background proteins, using the optimized IP-MS workflow with Pierce MS-Compatible Magnetic IP Kit protein A/G (Product # 90409) and CTNNB1 antibody (Product # 71-2700). STRING database was used to identify the protein interactor list. See more information on IP-MS verification of antibody selectivity. {IP-MS}



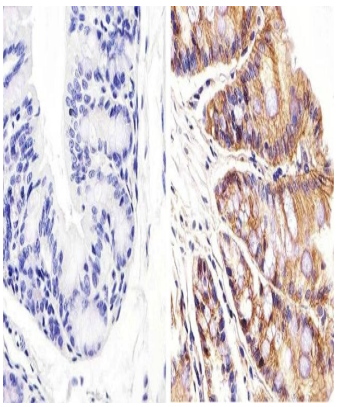
beta Catenin Antibody (71-2700) in ICC/IF

HeLa cells were plated on coverslips overnight. The next day the cells were fixed and permeabilized using the Image-iT® Fixation/Permeabilization Kit (Product # R37602) according to protocol. Cells were then incubated with 3 µg/mL anti-B-catenin antibody (Product # 71-2700) for 60 min at room temperature followed by three washes with dPBS. Cells were then incubated with a 1:1000 dilution of goat anti-rabbit Qdot® 655 secondary antibody (Product # Q-11421MP) for 60 min, followed by three washes with dPBS. Cells were labeled with NucBlue® Live cell stain (Product # R37605) and ActinGreen™ 488 ReadyProbes® reagent (Product # R37110) according to protocol. Coverslips were then mounted using ProLong® Gold Antifade Reagent (Product # P36930). Images were taken using the EVOS® FL Auto Imaging System and a 40X Coverslip corrected objective (Product # AMEP4699).



beta Catenin Antibody (71-2700) in ICC/IF

HeLa cells were plated on coverslips overnight. The next day the cells were fixed and permeabilized using the Image-iT® Fixation/Permeabilization Kit (Product # R37602) according to protocol. Cells were then incubated with 3 µg/mL anti-B-catenin antibody (Product # 71-2700) for 60 min at room temperature followed by three washes with dPBS. Cells were then incubated with a 1:1000 dilution of goat anti-rabbit Qdot® 655 secondary antibody (Product # Q-11421MP) for 60 min, followed by three washes with dPBS. Cells were labeled with NucBlue® Live cell stain (Product # R37605) and ActinGreen™ 488 ReadyProbes® reagent (Product # R37110) according to protocol. Coverslips were then mounted using ProLong® Gold Antifade Reagent (Product # P36930). Images were taken using the EVOS® FL Auto Imaging System and a 40X Coverslip corrected objective (Product # AMEP4699).



beta Catenin Antibody (71-2700) in IHC (P)

Immunohistochemistry analysis of Beta-Catenin showing membrane and weak cytoplasm staining of paraffin-embedded mouse colon tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Beta-Catenin Rabbit Polyclonal Antibody (Product # 71-2700) diluted in 3% BSA-PBS at a dilution of 1:20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

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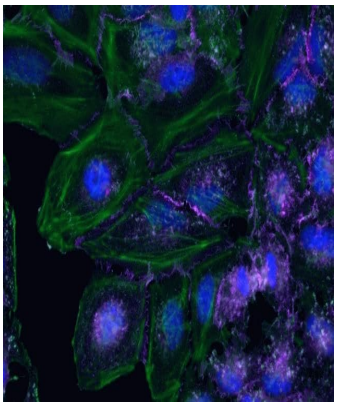
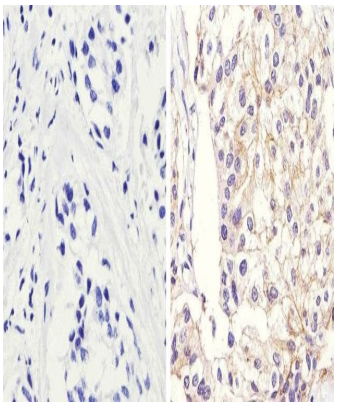


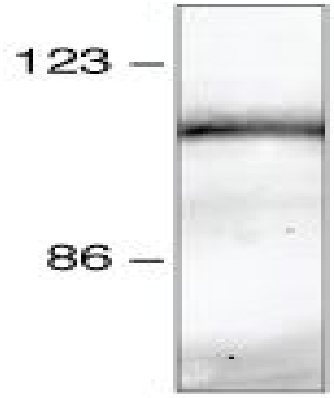
beta Catenin Antibody (71-2700) in ICC/IF

HeLa cells were plated on coverslips overnight. The next day the cells were fixed and permeabilized using the Image-iT® Fixation/Permeabilization Kit (Product # R37602) according to protocol. Cells were then incubated with 3 µg/mL anti-B-catenin (Product # 71-2700) for 60 mins at RT followed by 3 wash steps in dPBS. Cells were then incubated with a 1:1000 dilution of goat anti-rabbit Qdot® 655 (Product # Q11422MP) secondary antibody for 60 mins followed by 3 wash steps in dPBS. Cells were labeled with ReadyProbes® reagents NucBlue® Live (Product # R37605) and ActinRed™ 555 (Product # R37112) according to protocol. Coverslips were then mounted using ProLong® Gold Antifade Reagent (Product # P36930). Images were taken using the EVOS® FL Auto Imaging System and a 40X coverslip-corrected objective (Product # AMEP4699).



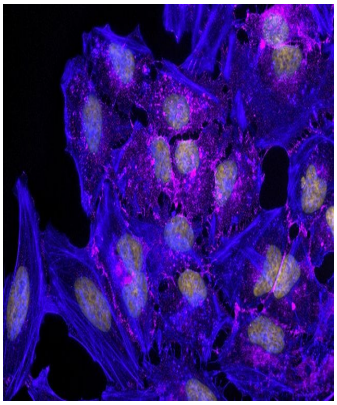
beta Catenin Antibody (71-2700) in IHC (P)

Immunohistochemistry analysis of Beta-Catenin showing staining in the membrane of paraffin-embedded human breast carcinoma (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Beta-Catenin Rabbit Polyclonal Antibody (Product # 71-2700) diluted in 3% BSA-PBS at a dilution of 1:100 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



beta Catenin Antibody (71-2700) in IP

Immunoprecipitation and Western Blot Analysis: Immunoprecipitation followed by western blot analysis of HeLa cell lysates using rabbit anti-beta-catenin polyclonal antibody (Product # 71-2700).



beta Catenin Antibody (71-2700) in ICC/IF

HeLa cells were plated on coverslips overnight. The next day the cells were fixed and permeabilized using the Image-iT® Fixation/Permeabilization Kit (Product # R37602) according to protocol. Cells were then incubated with 3 µg/mL anti-B-catenin antibody (Product # 71-2700) for 60 min at room temperature followed by three washes with dPBS. Cells were then incubated with a 1:1000 dilution of goat anti-rabbit Qdot® 655 secondary antibody (Product # Q-11421MP) for 60 min, followed by three washes with dPBS. Cells were labeled with NucBlue® Live cell stain (Product # R37605) and ActinGreen™ 488 ReadyProbes® reagent (Product # R37110) according to protocol. Coverslips were then mounted using ProLong® Gold Antifade Reagent (Product # P36930). Images were taken using the EVOS® FL Auto Imaging System and a 40X Coverslip corrected objective (Product # AMEP4699).

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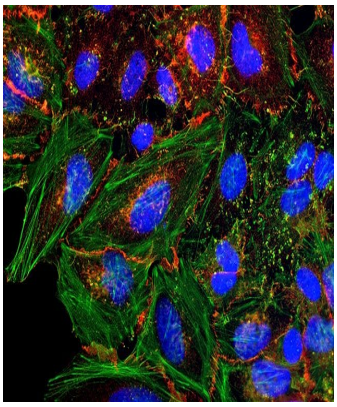
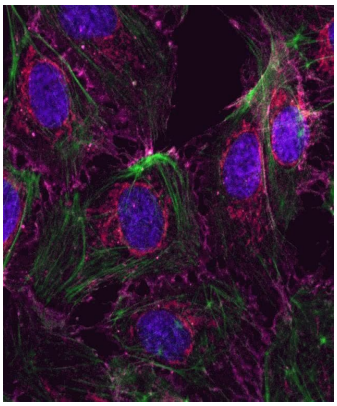


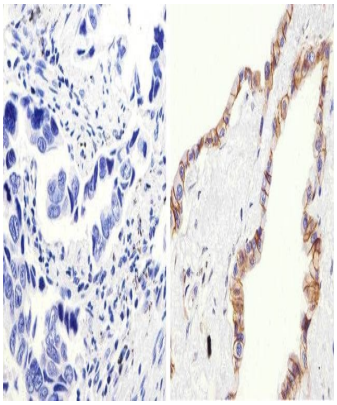
beta Catenin Antibody (71-2700) in ICC/IF

HeLa cells were plated on coverslips overnight. The next day the cells were fixed and permeabilized using the Image-iT® Fixation/Permeabilization Kit (Product # R37602) according to protocol. Cells were then incubated with 3 µg/mL anti-B-catenin antibody (Product # 71-2700) for 60 min at room temperature followed by three washes with dPBS. Cells were then incubated with a 1:1000 dilution of goat anti-rabbit Qdot® 655 secondary antibody (Product # Q-11421MP) for 60 min, followed by three washes with dPBS. Cells were labeled with NucBlue® Live cell stain (Product # R37605) and ActinGreen™ 488 ReadyProbes® reagent (Product # R37110) according to protocol. Coverslips were then mounted using ProLong® Gold Antifade Reagent (Product # P36930). Images were taken using the EVOS® FL Auto Imaging System and a 40X Coverslip corrected objective (Product # AMEP4699).



beta Catenin Antibody (71-2700) in ICC/IF

Human Umbilical Vein Endothelial Cells (HUVEC; C0035C) were grown to confluency in Medium 200 (Product # M-200-500) plus Large Vessel Endothelial Supplement (LVES; Product # A1460801). Cells were fixed with 4% formaldehyde and permeablized with 0.25% Triton™ X-100 followed by staining with mouse anti-ATP synthase subunit IF-1 monoclonal antibody (Product # A-21355) and rabbit anti-ß-Catenin polyclonal antibody (Product # 71-2700). Primary antibodies were detected with Qdot® 605 Goat F (ab')2 anti-mouse IgG Conjugate (Red; Product # Q11002MP) and Qdot® 655 Goat F (ab')2 anti-rabbit IgG Conjugate (Magenta, Product # Q-11421MP), respectively. Cells were counterstained with NucBlue® Fixed Cell (Blue; Product # R37606) and ActinGreen™ 488 (Green, Product # R37110) ReadyProbes™ Reagents. Cover slips were air dried, mounted with Cytoseal™ 60, and imaged on a Zeiss LSM 710 confocal microscope.



beta Catenin Antibody (71-2700) in IHC (P)

Immunohistochemistry analysis of Beta-Catenin showing staining in the membrane and cytoplasm of paraffin-embedded human lung adenocarcinoma (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Beta-Catenin Rabbit Polyclonal Antibody (Product # 71-2700) diluted in 3% BSA-PBS at a dilution of 1:100 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

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PubMed References For beta Catenin Polyclonal Antibody (CAT-15)

12 Immunocytochemistry References

Species / Dilution	Summary
Mouse / Not Cited	71-2700 was used in Immunocytochemistry-immunoflourescence to show that phosphorylation of FHOD proteins by ERK1 /2 is a critical switch for nuclear positioning and may play a role in the pathogenesis of cardiomyopathy caused by LMNA mutations. Developmental cell (2019; 51: 602) **"ERK1/2 Phosphorylation of FHOD Connects Signaling and Nuclear Positioning Alternations in Cardiac Laminopathy."** Author(s):Antoku S,Wu W,Joseph LC,Morrow JP,Worman HJ,Gundersen GG PubMed Article URL:http://dx.doi.org/10.1016/j.devcel.2019.10.023
Rat / 1:100	712700 was used in immunocytochemistry and western blot to explore how laminin2 in the basement membrane modulates the blood testis barrier dynamics during spermatogenesis FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2017; 31: 584) **"Regulation of the blood-testis barrier by a local axis in the testis: role of laminin 2 in the basement membrane."** Author(s):Gao Y,Mruk D,Chen H,Lui WY,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1096/fj.201600870R
Not Applicable / Not Cited	71-2700 was used in immunocytochemistry to study the direct alteration of thrombotic potential of endothelial cells and the hemodynamics associated with atrial fibrillation Thrombosis research (2016; 143: 34) **"Hemodynamics associated with atrial fibrillation directly alters thrombotic potential of endothelial cells."** Author(s):Simmers MB,Cole BK,Ogletree ML,Chen Z,Xu Y,Kong LJ,Mackman N,Blackman BR,Wamhoff BR PubMed Article URL:http://dx.doi.org/10.1016/j.thromres.2016.04.022
Not Applicable / 1:50	71-2700 was used in immunocytochemistry to determine the role of P-glycoprotein in the blood-testis barrier The international journal of biochemistry & cell biology (2009; 41: 2578) **"Drug transporter, P-glycoprotein (MDR1), is an integrated component of the mammalian blood-testis barrier."** Author(s):Su L,Cheng CY,Mruk DD PubMed Article URL:http://dx.doi.org/10.1016/j.biocel.2009.08.015
Rat / 1:500	712700 was used in immunocytochemistry and western blot to examine the organization of actin microfilaments in Sertoli cell at the blood testis barrier Spermatogenesis (2016; 6:) **"Overexpression of plastin 3 in Sertoli cells disrupts actin microfilament bundle homeostasis and perturbs the tight junction barrier."** Author(s):Li N,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1080/21565562.2016.1206353
Human / Not Cited	71-2700 was used in Immunocytochemistry to study the involvement of N-cadherin in the maturation of macropinocytosis through Rab5 recruitment, linking macropinocytosis and cell migration. Traffic (Copenhagen, Denmark) (2016; 17: 769) **"N-Cadherin Regulates Cell Migration Through a Rab5-Dependent Temporal Control of Macropinocytosis."** Author(s):Wen MH,Wang JY,Chiu YT,Wang MP,Lee SP,Tai CY PubMed Article URL:http://dx.doi.org/10.1111/tra.12402
Not Applicable / Not Cited	71-2700 was used in immunocytochemistry to explore the relationship between N-cadherin and connexin43 in the heart Journal of molecular and cellular cardiology (2008; 44: 597) **"N-cadherin haploinsufficiency affects cardiac gap junctions and arrhythmic susceptibility."** Author(s):Li J,Levin MD,Xiong Y,Petrenko N,Patel VV,Radice GL PubMed Article URL:http://dx.doi.org/10.1016/j.yjmcc.2007.11.013
Human / 1:50	71-2700 was used in Immunocytochemistry to ascertain MEF2C expression in human BCBM, establish the relationship with disease severity, disclose the involvement of vascular endothelial growth factor receptor-2 (VEGFR-2) and -catenin, also known as KDR and CTNNB1, respectively, and investigate if matched primary tumors express the protein. Cells (2021; 10:) **"Myocyte Enhancer Factor 2C as a New Player in Human Breast Cancer Brain Metastases."** Author(s):Galego S,Kauppila LA,Malhó R,Pimentel J,Brito MA PubMed Article URL:http://dx.doi.org/10.3390/cells10020378
Rat / 1:100	Proceedings of the National Academy of Sciences of the United States of America (2012; 109: 12562) **"Focal adhesion kinase-Tyr407 and -Tyr397 exhibit antagonistic effects on blood-testis barrier dynamics in the rat."** Author(s):Lie PP,Mruk DD,Mok KW,Su L,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1073/pnas.1202316109

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Mouse / 1:100	71-2700 was used in Immunocytochemistry to compare the morphokinetic characteristics of ZP intact and ZP free mouse pre-implantation embryos with time-lapse monitoring system. The International journal of developmental biology (2021; 64: 415) **"Evaluation of morphokinetic characteristics of zona pellucida free mouse pre-implantation embryos using time-lapse monitoring system."** Author(s):Kim J,Lee J,Choi YJ,Kwon O,Lee TB,Jun JH PubMed Article URL:http://dx.doi.org/10.1387/ijdb.190188jj
Human / 1:100	71-2700 was used in Immunocytochemistry to identify gain-of-function mutations in both CTNNB1 and GNA11 by whole-exome sequencing of 3/41 aldosterone-producing adenomas. Nature genetics (2021; 53: 1360) **"Somatic mutations of GNA11 and GNAQ in CTNNB1-mutant aldosterone-producing adenomas presenting in puberty, pregnancy or menopause."** Author(s):Zhou J,Azizan EAB,Cabrera CP,Fernandes-Rosa FL,Boulkroun S,Argentesi G,Cottrell E,Amar L,Wu X,O'Toole S,Goodchild E,Marker A,Senanayake R,Garg S,Åkerström T,Backman S,Jordan S,Polubothu S,Berney DM,Gluck A,Lines KE,Thakker RV,Tuthill A,Joyce C,Kaski JP,Karet Frankl FE,Metherell LA,Teo AED,Gurnell M,Parvanta L,Drake WM,Wozniak E,Klinzing D,Kuan JL,Tiang Z,Gomez Sanchez CE,Hellman P,Foo RSY,Mein CA,Kinsler VA,Björklund P,Storr HL,Zennaro MC,Brown MJ PubMed Article URL:http://dx.doi.org/10.1038/s41588-021-00906-y
Mouse / 1:20	71-2700 was used in Immunocytochemistry to provide further understanding of BC brain metastasis formation, disclosing potential therapeutic targets. Cancers (2021; 13:) **"Picturing Breast Cancer Brain Metastasis Development to Unravel Molecular Players and Cellular Crosstalk."** Author(s):Figueira I,Galego S,Custódio-Santos T,Vicente R,Molnár K,Haskó J,Malhó R,Videira M,Wilhelm I,Krizbai I,Brito MA PubMed Article URL:http://dx.doi.org/10.3390/cancers13040910

7 Immunohistochemistry References

Species / Dilution	Summary
Rat / 1:100	71-2700 was used in Immunohistochemistry to demonstrate that Spire 1 is an ectoplasmic specialization regulator to support germ cell development during spermatogenesis. Cell death & disease (2018; 9:) **"Actin nucleator Spire 1 is a regulator of ectoplasmic specialization in the testis."** Author(s):Wen Q,Li N,Xiao X,Lui WY,Chu DS,Wong CKC,Lian Q,Ge R,Lee WM,Silvestrini B,Cheng CY PubMed Article URL:http://dx.doi.org/10.1038/s41419-017-0201-6
Rat / 1:100	71-2700 was used in Immunohistochemistry-immunofluorescence to study the role of Dishevelled 3 in supporting Sertoli cell tight junction-permeability barrier function. Cell death & disease (2019; 10:) **"Planar cell polarity protein Dishevelled 3 (Dvl3) regulates ectoplasmic specialization (ES) dynamics in the testis through changes in cytoskeletal organization."** Author(s):Li L,Mao B,Yan M,Wu S,Ge R,Lian Q,Cheng CY PubMed Article URL:http://dx.doi.org/10.1038/s41419-019-1394-7
Mouse / 1:500	71-2700 was used in Immunohistochemistry-immunofluorescence to propose that SHH signaling has a default role in maintaining epithelial identity throughout the anterior foregut and that regionalized reductions in SHH trigger epithelial remodeling. eLife (2022; 11:) **"Hedgehog regulation of epithelial cell state and morphogenesis in the larynx."** Author(s):Ramachandran J,Zhou W,Bardenhagen AE,Nasr T,Yates ER,Zorn AM,Ji H,Vokes SA PubMed Article URL:http://dx.doi.org/10.7554/eLife.77055
Human / Not Cited	71-2700 was used in Immunohistochemistry to investigate the interactions between cancer-associated fibroblasts and cancer cells which drive cooperative tumour invasion. Nature cell biology (2017; 19: 224) **"A mechanically active heterotypic E-cadherin/N-cadherin adhesion enables fibroblasts to drive cancer cell invasion."** Author(s):Labernadie A,Kato T,Brugués A,Serra-Picamal X,Derzsi S,Arwert E,Weston A,González-Tarragó V,Elosegui-Artola A,Albertazzi L,Alcaraz J,Roca-Cusachs P,Sahai E,Trepat X PubMed Article URL:http://dx.doi.org/10.1038/ncb3478

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	71-2700 was used in Immunohistochemistry-immunofluorescence to elucidate the regulation of blood-testis barrier dynamics by alpha(2)-macroglobulin.
Rat / 1:100	Endocrinology (2005; 146: 1893) **"Blood-testis barrier dynamics are regulated by {alpha}2-macroglobulin via the c-Jun N-terminal protein kinase pathway."** Author(s):Wong CH,Mruk DD,Siu MK,Cheng CY PubMed Article URL:http://dx.doi.org/10.1210/en.2004-1464
	71-2700 was used in Immunohistochemistry to study the role of Desmoplakin in the apical expansion of cells during radial intercalation.
Xenopus / 1:500	Developmental biology (2019; 450: 115) **"Desmoplakin is required for epidermal integrity and morphogenesis in the Xenopus laevis embryo."** Author(s):Bharathan NK,Dickinson AJG PubMed Article URL:http://dx.doi.org/10.1016/j.ydbio.2019.03.010
	71-2700 was used in Immunohistochemistry to show that PVM infection and CS exposure additively upregulates the IL-20 pathway, leading to the promotion of epithelial damages.
Mouse / Not Cited	Biomedicines (2021; 9:) **"IL-20 Cytokines Are Involved in Epithelial Lesions Associated with Virus-Induced COPD Exacerbation in Mice."** Author(s):Le Roux M,Ollivier A,Kervoaze G,Beke T,Gillet L,Pichavant M,Gosset P PubMed Article URL:http://dx.doi.org/10.3390/biomedicines9121838

16 Western Blot References

Species / Dilution	Summary
	71-2700 was used in Western Blotting to investigate the function of ROS proto-oncogene 1 receptor tyrosine kinase in regulating the migration and proliferation of acute myeloid leukaemia cells through Wnt/-catenin signalling, and in arsenic trioxide treatment.
Human / 1:200	Oncology letters (2018; 15: 9392) **"Downregulation of ROS1 enhances the therapeutic efficacy of arsenic trioxide in acute myeloid leukemia cell lines."** Author(s):Li J PubMed Article URL:http://dx.doi.org/10.3892/ol.2018.8458
	71-2700 was used in Western Blotting to investigate the role of dynein 1 in supporting the transport of spermatids and organelles across the seminiferous epithelium during spermatogenesis.
Rat / 1:250	American journal of physiology. Endocrinology and metabolism (2018; 315: E924) **"Dynein 1 supports spermatid transport and spermiation during spermatogenesis in the rat testis."** Author(s):Wen Q,Tang EI,Lui WY,Lee WM,Wong CKC,Silvestrini B,Cheng CY PubMed Article URL:http://dx.doi.org/10.1152/ajpendo.00114.2018
	71-2700 was used in Western Blotting to elucidate the potential effects of miR-187-3p on gemcitabine sensitivity in the breast cancer cell line, MDA-MB-231 using reverse transcription quantitative-PCR, cell viability, flow cytometry, luciferase reporter assay and western blot analysis.
Human / 1:1000	Experimental and therapeutic medicine (2020; 20: 952) **"miR-187-3p increases gemcitabine sensitivity in breast cancer cells by targeting FGF9 expression."** Author(s):Wu Y,Tao L,Liang J,Qiao Y,Liu W,Yu H,Yu X,Liu L PubMed Article URL:http://dx.doi.org/10.3892/etm.2020.8770
	71-2700 was used in Western Blotting to suggest that besides as a monitor for Sertoli-germ cell junction integrity, testin is also an essential molecule to maintain Sertoli-Sertoli junctions.
Rat / 1:250	Journal of cellular physiology (2020; 235: 6127) **"Testin regulates the blood-testis barrier via disturbing occludin/ZO-1 association and actin organization."** Author(s):Su L,Wang Z,Xie S,Hu D,Cheng YC,Mruk DD,Guan Y PubMed Article URL:http://dx.doi.org/10.1002/jcp.29541
	71-2700 was used in western blot to assess the role of intercellular adhesion molecule-2 in the testis
Not Applicable / 1:250	The Journal of endocrinology (2013; 216: 73) **"Intercellular adhesion molecule-2 is involved in apical ectoplasmic specialization dynamics during spermatogenesis in the rat."** Author(s):Xiao X,Cheng CY,Mruk DD PubMed Article URL:http://dx.doi.org/10.1530/JOE-12-0434

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	71-2700 was used in immunocytochemistry and western blot to characterize disruption of the sertolic cell cytoskeleton by interleukin 1alpha and its affect on gap junctional communication
Not Applicable / 1:400	Cellular signalling (2016; 28: 469) **"Interleukin 1alpha-induced disruption of the Sertoli cell cytoskeleton affects gap junctional communication."** Author(s):Chojnacka K,Bilinska B,Mruk DD PubMed Article URL:http://dx.doi.org/10.1016/j.cellsig.2016.02.003
	71-2700 was used in Western Blotting to suggest that Rab4A participates in adherens junction dynamics in the testis.
Rat / Not Cited	Journal of andrology (2007; 28: 742) **"Rab4A GTPase catenin interactions are involved in cell junction dynamics in the testis."** Author(s):Mruk DD,Lau AS,Sarkar O,Xia W PubMed Article URL:http://dx.doi.org/10.2164/jandrol.106.002204
	71-2700 was used in Western Blot to evaluate the molecular targets and signaling mechanisms of the Pinhead protein during Xenopus gastrulation.
Xenopus / Not Cited	iScience (2021; 24:) **"Pinhead antagonizes Admp to promote notochord formation."** Author(s):Itoh K,Ossipova O,Sokol SY PubMed Article URL:http://dx.doi.org/10.1016/j.isci.2021.102520
Rat / 1:200	Journal of cell science (2014; 127: 4870) **"rpS6 regulates blood-testis barrier dynamics through Akt-mediated effects on MMP-9."** Author(s):Mok KW,Mruk DD,Cheng CY PubMed Article URL:http://dx.doi.org/10.1242/jcs.152231
Rat / 1:125	Proceedings of the National Academy of Sciences of the United States of America (2012; 109: 12562) **"Focal adhesion kinase-Tyr407 and -Tyr397 exhibit antagonistic effects on blood-testis barrier dynamics in the rat."** Author(s):Lie PP,Mruk DD,Mok KW,Su L,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1073/pnas.1202316109
	71-2700 was used in Western Blotting to study the mechanism of laminin 2-mediated regulation in Sertoli cell blood-testes barrier dynamics.
Rat / 1:250	Endocrinology (2017; 158: 963) **"Basement Membrane Laminin 2 Regulation of BTB Dynamics via Its Effects on F-Actin and Microtubule Cytoskeletons Is Mediated Through mTORC1 Signaling."** Author(s):Gao Y,Chen H,Lui WY,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1210/en.2016-1630
	71-2700 was used in western blot to elucidate how c-Yes regulates the blood-testis barrier and apical ectoplasmic specialization integrity.
Rat / 1:250	The international journal of biochemistry & cell biology (2011; 43: 651) **"c-Yes regulates cell adhesion at the blood-testis barrier and the apical ectoplasmic specialization in the seminiferous epithelium of rat testes."** Author(s):Xiao X,Mruk DD,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1016/j.biocel.2011.01.008
	71-2700 was used in immunohistochemistry and western blot to study the role of plastin 3 in ectoplasmic specialization dynamics during spermatogenesis in the rat testis
Rat / 1:250	FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2015; 29: 3788) **"Actin-bundling protein plastin 3 is a regulator of ectoplasmic specialization dynamics during spermatogenesis in the rat testis."** Author(s):Li N,Mruk DD,Wong CK,Lee WM,Han D,Cheng CY PubMed Article URL:http://dx.doi.org/10.1096/fj.14-267997
	71-2700 was used in Western Blotting to investigate the clinical significance and biological function of Deltex-3-like in human glioma.
Human / 1:1,000	International journal of molecular medicine (2017; 40: 491) **"DTX3L is upregulated in glioma and is associated with glioma progression."** Author(s):Xu P,Tao X,Zhao C,Huang Q,Chang H,Ban N,Bei Y,Xia X,Shen C,Wang K,Xu L,Wu P,Ren J,Wang D PubMed Article URL:http://dx.doi.org/10.3892/ijmm.2017.3023
	71-2700 was used in Western Blotting to extend the "adenoma-carcinoma" model and identify microbes such as F. nucleatum as cancer "facilitators".
Human / 1:2000	EMBO reports (2019; 20:) **"Fusobacterium nucleatum promotes colorectal cancer by inducing Wnt/-catenin modulator Annexin A1."** Author(s):Rubinstein MR,Baik JE,Lagana SM,Han RP,Raab WJ,Sahoo D,Dalerba P,Wang TC,Han YW PubMed Article URL:http://dx.doi.org/10.15252/embr.201847638

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	71-2700 was used in western blot to identify genes that contribute to primary mouth anlage
Not Applicable / Not Cited	Development (Cambridge, England) (2009; 136: 1071) **"The Wnt antagonists Frzb-1 and Crescent locally regulate basement membrane dissolution in the developing primary mouth."** Author(s):Dickinson AJ,Sive HL PubMed Article URL:http://dx.doi.org/10.1242/dev.032912

3 ChIP assay References

Species / Dilution	Summary
Mouse / 1:200	71-2700 was used in ChIP assay to conclude that -catenin's direct transcriptional role is restricted to the induction of NPCs, where rising -catenin levels switch inhibitory TCF7L1/TCF7L2 complexes to activating LEF1/TCF7 complexes at primed gene targets poised for rapid initiation of a nephrogenic program. eLife (2021; 10:) **"A -catenin-driven switch in TCF/LEF transcription factor binding to DNA target sites promotes commitment of mammalian nephron progenitor cells."** Author(s):Guo Q,Kim A,Li B,Ransick A,Bugacov H,Chen X,Lindström N,Brown A,Oxburgh L,Ren B,McMahon AP PubMed Article URL:http://dx.doi.org/10.7554/eLife.64444
Mouse / Not Cited	71-2700 was used in Chromatin immunoprecipitation to determine the roles and interactions of Sox2, Brachyury and Tbx6 in neuro-mesodermal progenitor potency and lineage choice. Developmental cell (2017; 42: 514) **"Antagonistic Activities of Sox2 and Brachyury Control the Fate Choice of Neuro-Mesodermal Progenitors."** Author(s):Koch F,Scholze M,Wittler L,Schifferl D,Sudheer S,Grote P,Timmermann B,Macura K,Herrmann BG PubMed Article URL:http://dx.doi.org/10.1016/j.devcel.2017.07.021
Human / Not Cited	71-2700 was used in Chromatin immunoprecipitation to reveal EHMT2 as a critical regulator of Wnt signaling, implicating Ehmt2 as a potential target in lung cancer and other AT2-mediated lung pathologies. eLife (2022; 11:) **"EHMT2 methyltransferase governs cell identity in the lung and is required for KRAS ^{G12D} tumor development and propagation."** Author(s):Pribluda A,Daemen A,Lima AN,Wang X,Hafner M,Poon C,Modrusan Z,Katakam AK,Foreman O,Eastham J,Hung J,Haley B,Garcia JT,Jackson EL,Junttila MR PubMed Article URL:http://dx.doi.org/10.7554/eLife.57648

1 Immunohistochemistry (Paraffin) References

Species / Dilution	Summary
Not Applicable / 1:200	71-2700 was used in immunohistochemistry - paraffin section to study an in vitro model for tumor progression modeling and drug screening by using a reductionist metastasis-on-a-chip platform Biotechnology and bioengineering (2016; 113: 2020) **"A reductionist metastasis-on-a-chip platform for in vitro tumor progression modeling and drug screening."** Author(s):Skardal A,Devarasetty M,Forsythe S,Atala A,Soker S PubMed Article URL:http://dx.doi.org/10.1002/bit.25950

2 Immunoprecipitation References

Species / Dilution	Summary
Mouse / Not Cited	71-2700 was used in Immunoprecipitation to conclude that the carboxyl-terminal domain of Cx43 is involved in regulating the localization, number and size of Cx43 plaques in vivo. Circulation research (2007; 101: 1283) **"C-terminal truncation of connexin43 changes number, size, and localization of cardiac gap junction plaques."** Author(s):Maass K,Shibayama J,Chase SE,Willecke K,Delmar M PubMed Article URL:http://dx.doi.org/10.1161/CIRCRESAHA.107.162818
Not Applicable / 1:50	71-2700 was used in immunoprecipitation to examine the role of actin and tubulin in ectoplasmic specialization Spermatogenesis (2012; 2: 117) **"Microtubule affinity-regulating kinase 4 (MARK4) is a component of the ectoplasmic specialization in the rat testis."** Author(s):Tang EI,Xiao X,Mruk DD,Qian XJ,Mok KW,Jenardhanan P,Lee WM,Mathur PP,Cheng CY PubMed Article URL:http://dx.doi.org/10.4161/spmg.20724

3 Miscellaneous PubMed References

Species / Dilution	Summary

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	71-2700 was used in immunohistochemistry - frozen section to assess the use of connexin-43 monoclonal antibodies
Rat / Not Cited	Bulletin of experimental biology and medicine (2009; 148: 725) **"Immunofluorescent analysis of connexin-43 using monoclonal antibodies to its extracellular domain."** Author(s):Baklaushev VP,Gurina OI,Yusubalieva GM,Grinenko NF,Cytrin EB,Victorov IV,Chekhonin VP PubMed Article URL:http://dx.doi.org/10.1007/s10517-010-0802-x
Pig / 1:400	71-2700 was used in immunohistochemistry, immunoprecipitation, and western blot to test if flutamide-induced androgen deficiency during mid- and late pregnancy alters luteal expression of adherens junction protein, beta-catenin, and E-cadherin
	Histology and histopathology (2015; 30: 1341) **"Flutamide alters -catenin expression and distribution, and its interactions with E-cadherin in the porcine corpus luteum of mid- and late pregnancy."** Author(s):Grzesiak M,Mitan A,Janik ME,Knapczyk-Stwora K,Slomczynska M PubMed Article URL:http://dx.doi.org/10.14670/HH-11-630
Dog / Not Cited	71-2700 was used in immunocytochemistry to study the differentiation and transformation of canine kidney MDCK cells cultured in either a 2D or 3D environment
	Laboratory investigation; a journal of technical methods and pathology (2010; 90: 915) **"Different responses in transformation of MDCK cells in 2D and 3D culture by v-Src as revealed by microarray techniques, RT-PCR and functional assays."** Author(s):Töyli M,Rosberg-Kulha L,Capra J,Vuoristo J,Eskelinen S PubMed Article URL:http://dx.doi.org/10.1038/labinvest.2010.63

4 Immunohistochemistry (Frozen) References

Species / Dilution	Summary
	71-2700 was used in immunohistochemistry - frozen section to study regulation of the blood-testis barrier
Not Applicable / 1:100	Journal of cellular physiology (2005; 205: 141) **"Disruption of Sertoli-germ cell adhesion function in the seminiferous epithelium of the rat testis can be limited to adherens junctions without affecting the blood-testis barrier integrity: an in vivo study using an androgen suppression model."** Author(s):Xia W,Wong CH,Lee NP,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1002/jcp.20377
Rat / Not Cited	71-2700 was used in immunohistochemistry - frozen section to show that the cadherin/catenin complex is present between Sertoli and germ cells and is used for the assembly of functional adheren junctions.
	Biology of reproduction (2003; 68: 489) **"Is the cadherin/catenin complex a functional unit of cell-cell actin-based adherens junctions in the rat testis?"** Author(s):Lee NP,Mruk D,Lee WM,Cheng CY PubMed Article URL:http://dx.doi.org/10.1095/biolreprod.102.005793
Not Applicable / 1:100	71-2700 was used in immunohistochemistry - frozen section to test if TGF-beta3 regulates anchoring junction dynamics in the blood-testis barrier
	Developmental biology (2005; 280: 321) **"TGF-beta3 regulates anchoring junction dynamics in the seminiferous epithelium of the rat testis via the Ras /ERK signaling pathway: An in vivo study."** Author(s):Xia W,Cheng CY PubMed Article URL:http://dx.doi.org/10.1016/j.ydbio.2004.12.036
Rat / Not Cited	71-2700 was used in immunohistochemistry - frozen section to test if Cd affects cadherin-dependent junctions in the proximal tubule epithelium in vivo.
	Toxicology and applied pharmacology (2003; 189: 180) **"Cadmium alters the localization of N-cadherin, E-cadherin, and beta-catenin in the proximal tubule epithelium."** Author(s):Prozialeck WC,Lamar PC,Lynch SM PubMed Article URL:http://dx.doi.org/10.1016/s0041-008x(03)00130-3

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