Product Datasheet

Ki67/MKI67 Antibody (SP6) - Unpurified

NB600-1252

Unit Size: 0.5 ml

Store at 4C.

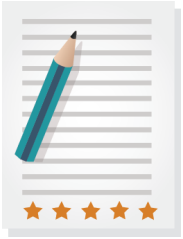
www.novusbio.com technical@novusbio.com

Reviews: 4 Publications: 93

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB600-1252

Updated 10/23/2024 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/NB600-1252



NB600-1252

Ki67/MKI67 Antibody (SP6) - Unpurified

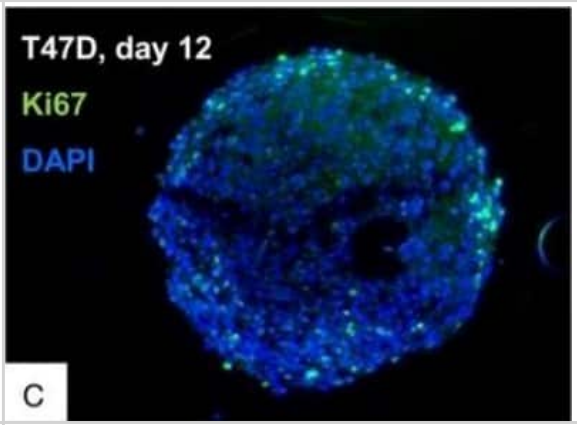
Product Information	
Unit Size	0.5 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C.
Clonality	Monoclonal
Clone	SP6
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Tissue culture supernatant
Buffer	Tissue culture supernatant
Target Molecular Weight	359 kDa

Product Description	
Host	Rabbit
Gene ID	4288
Gene Symbol	MKI67
Species	Human, Mouse, Rat, Canine, Equine
Reactivity Notes	Rat reactivity reported in scientific literature (PMID:32731460). Ki67/MKI67 (SP6). antibody reacted with Mouse (PMID: 22020958). and Rat (PMID: 30810241). Equine and Canine reactivity reported from a verified customer review.
Marker	Proliferation Marker
Immunogen	The immunogen for this unpurified KI67/MKI67 Antibody (SP6) was made using a synthetic peptide from the C-Terminus of Human KI67/MKI67.

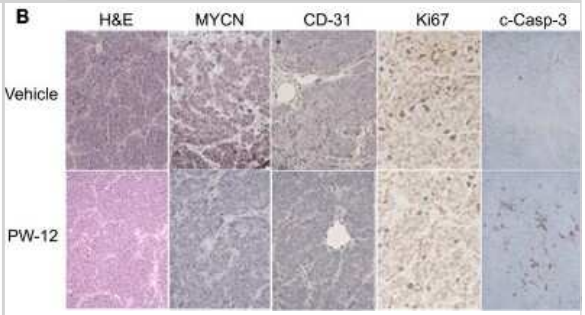
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, In vivo assay, Immunohistochemistry Whole-Mount, Knockdown Validated
Recommended Dilutions	Western Blot, Immunohistochemistry 1:25-1:50, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:25-1:50, Immunohistochemistry-Frozen 1:10-1:500, In vivo assay, Immunohistochemistry Whole-Mount, Knockdown Validated
Application Notes	Use in IHC-WHMT reported in scientific literature (PMID:35104247) IHC-P: recommended incubation time of 30-60 min at RT. Ki67/MKI67 Antibody (SP6) was used for ICC/IF (PMID: 20235278) and IHC-Fr reported in scientific literature (PMID: 23300752). Use in Western blot reported in scientific literature (PMID: 31078687). Use In vivo reported in scientific literature (PMID:31398954)..

Images

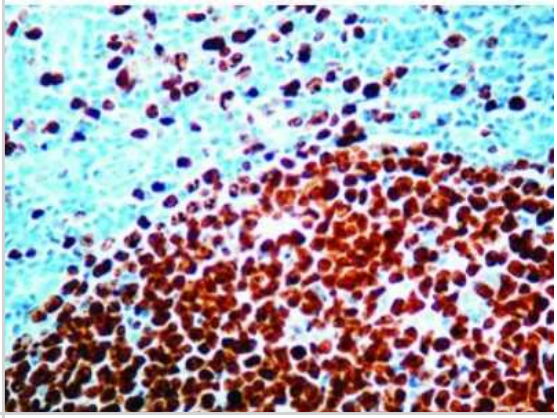
Immunocytochemistry/Immunofluorescence: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - T47D cells form functional 3D spheroids in a scaffold-free system. Sections of 3D microtissues grown for 12 days were incubated with DAPI and an antibody against Ki67 (green) to stain proliferative cells analyzed by fluorescence microscopy. Nuclei were visualized with DAPI (blue). Image collected and cropped by CiteAb from the following publication (https://doi.wiley.com/10.1002/cam4.630), licensed under a CC-BY license.



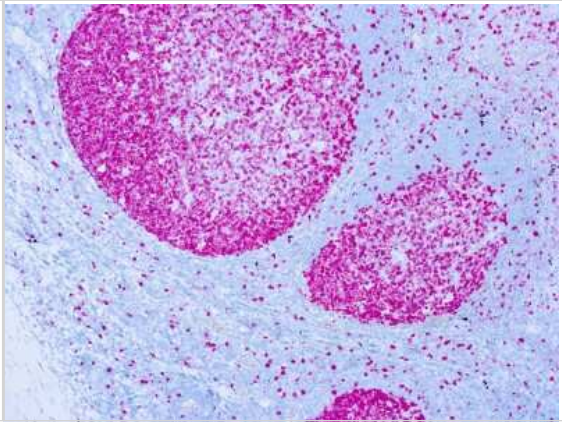
Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - PW-12 is efficacious in an orthotopic flank tumor model of MYCN-amplified medulloblastoma. Mice were implanted with 6 x 106 SmoWT medulloblastoma cells in the hindflank. Animals were treated for 7 days with 25 mg/kg of PW-12 (n = 5) or vehicle alone (n = 5). Histology on H&E stain is consistent with medulloblastoma (H&E, 20x). Tumor cell proliferation (Ki67, 40x) was decreased, apoptosis (cleaved-caspase-3, 40x) increased, MYCN (20x) expression downregulated, and vascularity decreased in PW-12 treated tumors as confirmed by histology and cell quantification for apoptosis and cell proliferation. Image collected and cropped by CiteAb from the following publication (https://www.frontiersin.org/Cancer_Molecular_Targets_and_Therapeutics/10.3389/fonc.2015.00111/abstract), licensed under a CC-BY license.



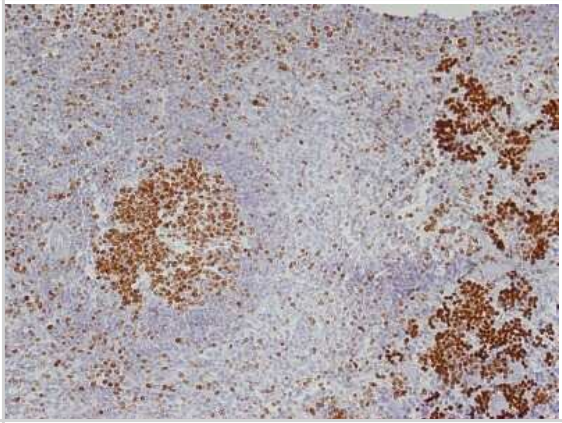
Immunohistochemistry-Paraffin: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Formalin fixed paraffin embedded human tonsil stained with Ki-67 antibody.



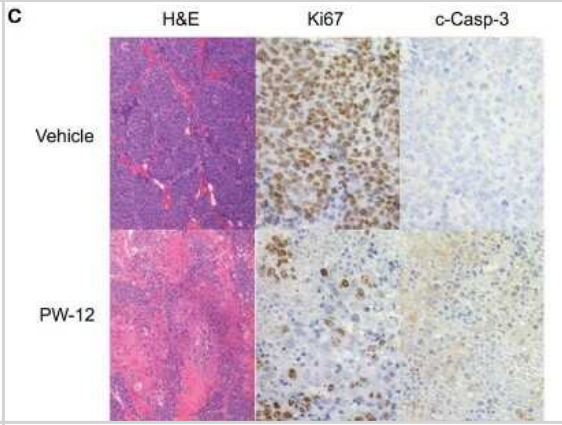
Immunohistochemistry-Paraffin: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Ki-67/MKI67 Antibody (SP6) [NB600-1252] - Formalin fixed paraffin embedded human tonsil stained with Ki-67 antibody.



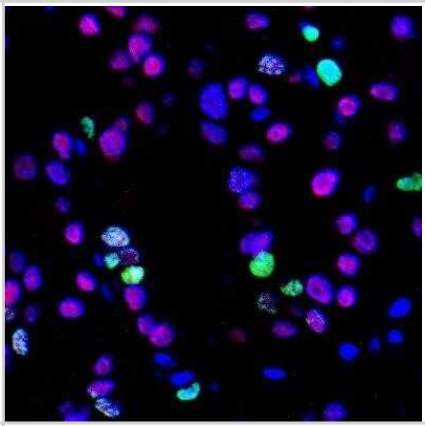
Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Paraffin-embedded alcohol fixed rat spleen tissue (20x). Antigen retrieval pH 9. Ki67 dilution 1:100 incubation ON 4C. This image was submitted via customer review.



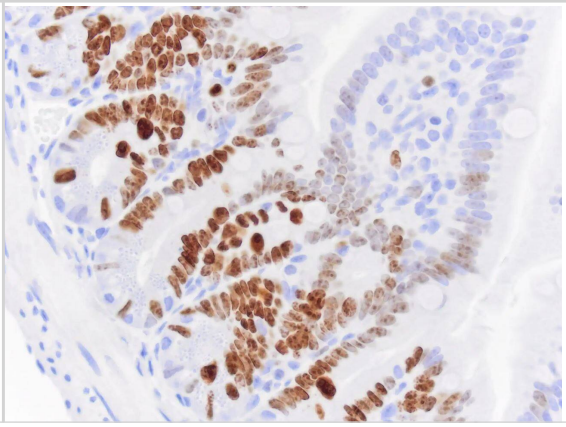
Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - PW-12 is efficacious in a GEM model of MYCN-amplified neuroblastoma. Tumor-bearing TH-MYCN mice were treated for 14 days with either 25 mg/kg of PW-12 (n = 3) or vehicle alone (n = 3). Histology for Ki67 and c-Caspase 3 shows increase in apoptosis and decrease in proliferation in treated tumors. Image collected and cropped by CiteAb from the following publication (https://www.frontiersin.org/Cancer_Molecular_Targets_and_Therapeutics/10.3389/fonc.2015.00111/abstract), licensed under a CC-BY license.

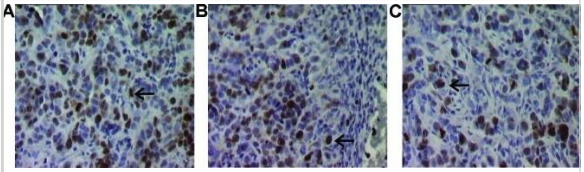
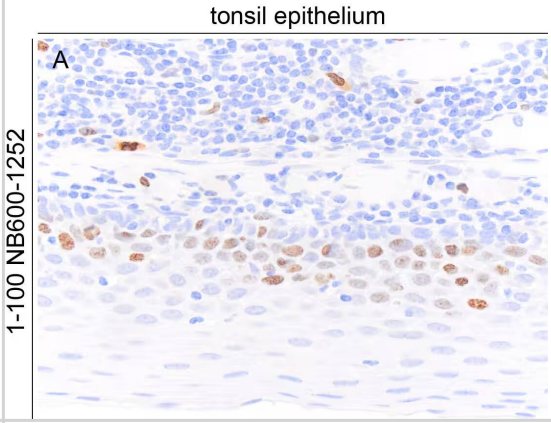
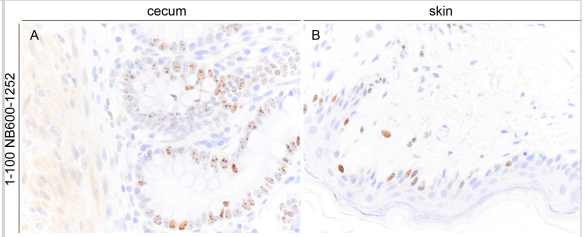
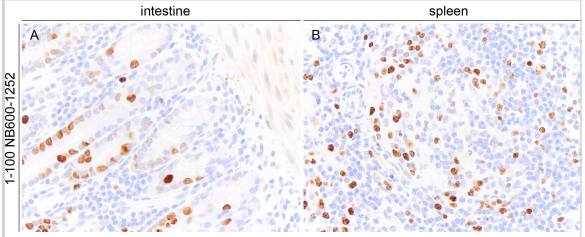


Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Ki-67/MKI67 Antibody (SP6) [NB600-1252] - Ki67 staining in mouse thyroid tissue at pre-tumor stage (green). Dilution is 1:100. This image was submitted via customer Review.

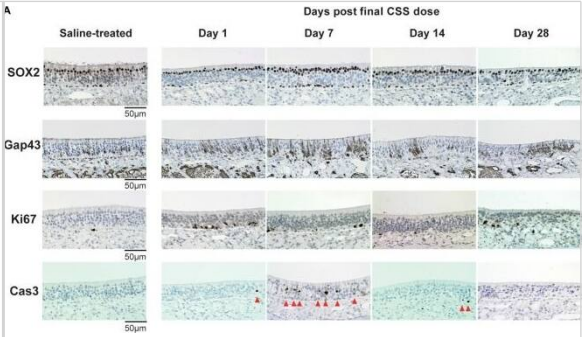


Immunohistochemistry-Paraffin: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Ki-67 (NB600-1252) immunoreactivity in an FFPE section of mouse small intestine. Primary antibody was diluted 1:100 and left on sections for 1h at room temperature. Secondary antibody was Horse Anti-Rabbit HRP. Image from verified customer review.

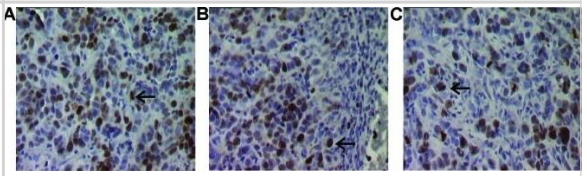


Immunohistochemistry of tissue slices treated with trastuzumab and docetaxel. (Ki-67, arrows; A-C) and (cleaved caspase-3, arrows; D-F) were quantified by counting the number of positively stained cells in 4 fields of view at x40. Images are representative of untreated (A, D), trastuzumab at 100 µg/ml (B and E) and docetaxel at 100 nM (C and F). Images were digitally scanned ×40 (AlexaSoft X-PRO).	
Immunohistochemistry-Paraffin: Rabbit Monoclonal Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Image depicting Ki67/MKI67 immunoreactivity in a FFPE section of human tonsil. NB600-1252 was diluted 1-100 and left on tissue sections for 30m at room temperature. Secondary was horse anti rabbit HRP polymer. Image from a verified customer review.	
Immunohistochemistry-Paraffin: Rabbit Monoclonal Ki67/MKI67 Antibody (SP6) - Unpurified [IMGENEX: IMG-80336] [NB600-1252] - Images depicting Ki67/MKI67 immunoreactivity in FFPE sections of canine cecum and skin. NB600-1252 was diluted 1-100 and left on tissue sections for 30m at room temperature. Image from a verified customer review.	
Immunohistochemistry-Paraffin: Rabbit Monoclonal Ki67/MKI67 Antibody (SP6) - Unpurified - Images depicting Ki67/MKI67 immunoreactivity in FFPE sections of equine intestine and spleen. NB600-1252 was diluted 1-100 and left on tissue sections for 30m at room temperature. Image from a verified customer review.	

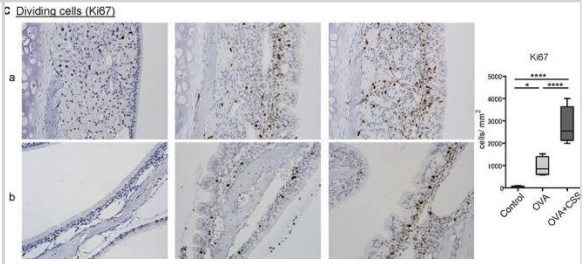
(A) Representative images of immunohistological staining (brown) of SOX2+ olfactory receptor neurons (ORN) progenitor cells, Gap43+ immature ORNs, Ki67+ proliferating cells & cleaved caspase-3+ (Cas3+) apoptotic cells. Tissue sections were counterstained with the nuclear dye hematoxylin (blue). Arrowheads indicate Cas3+ apoptotic cells in the OE (n = 6). (B) Numbers of SOX2+ ORN progenitors & Ki67+ actively proliferating cells per mm of the basal layer, & Gap43+ immature ORNs & Cas3+ apoptotic cells per mm of the OE in saline or CSS-treated mice. Data represent means ± SEM (n = 6). *P < 0.05; **P < 0.01; ***P < 0.001 compared with saline-treated mice (one-way ANOVA). Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29950987), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



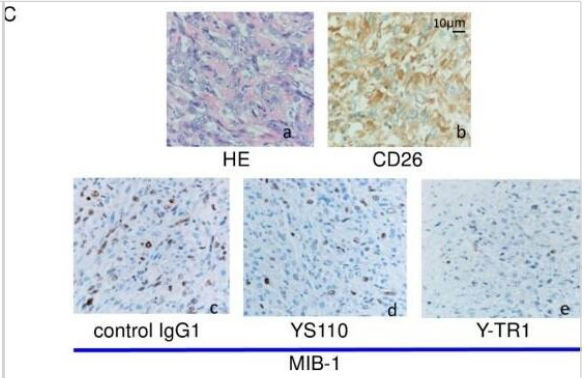
Immunohistochemistry-Paraffin: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Immunohistochemistry of tissue slices treated with trastuzumab & docetaxel. (Ki-67, arrows; A-C) & (cleaved caspase-3, arrows; D-F) were quantified by counting the number of positively stained cells in 4 fields of view at x40. Images are representative of untreated (A, D), trastuzumab at 100 µg/ml (B & E) & docetaxel at 100 nM (C & F). Images were digitally scanned ×40 (AlexaSoft X-PRO). Image collected & cropped by CiteAb from the following publication (https://www.spandidos-publications.com/10.3892/or.2015.4074), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



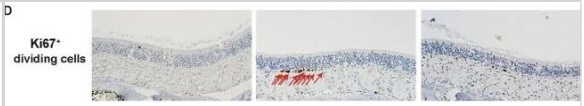
Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - (A–C) Inflammatory cell infiltration & cell division in the nasal RM were evaluated using immunohistochemical staining (brown). Tissue sections were counterstained with the nuclear dye hematoxylin (blue). Representative immunohistochemical images of neutrophils (A), CD3+ lymphocytes (B), & Ki67+ dividing cells (C) (400× magnification), & comparative charts of cell counts in each group. *P < 0.01; **P < 0.01; ****P < 0.0001 (n = 6, one-way analysis of variance). OVA, ovalbumin; CSS, cigarette smoke solution. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32132898), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

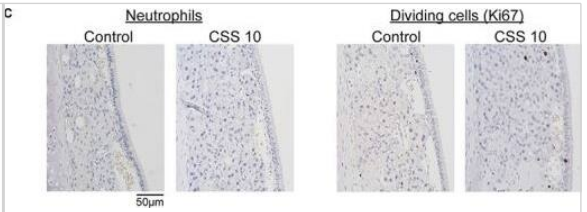


Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - In vivo anti-tumor effect of Y-TR1 in the NOD/SCID mouse xenograft model using CD26 positive MM cell line JMN. (A) Y-TR1 administered intraperitoneally 4 mg/kg/dose, three times per week, for a total of nine doses from day zero of subcutaneous inoculation of 1 × 107 JMN cells. Average estimated tumor volume on day 55 compared among three groups (control, YS110, Y-TR1, n = 10) w/ Fisher's protected least protected difference multiple comparison test. Mean tumor volume of the Y-TR1 group significantly lower (* $p < 0.05$) than that of the control or YS110 group. Mean tumor volume of the YS110 group not significantly altered compared w/ the control. An experiment out of two w/ similar results is shown; (B) Y-TR1 administered intraperitoneally 8 mg/kg/dose, three times per week, for a total of nine doses. The average estimated tumor weight on day 42 compared among three groups (control, 14D10, YS110, Y-TR1, n = 10) w/ Fisher's protected least protected difference multiple comparison test. Mean tumor weight of the YS110 or Y-TR1 groups significantly lower (* $p < 0.05$ or ** $p < 0.025$, respectively) than that of the control group. Mean tumor weight of the Y-TR1 group significantly lower (* $p < 0.05$) than that of the YS110 group. An experiment out of two w/ similar results is shown; (C) histological analysis of xenograft tumors of JMN cells. JMN-derived tumors show histopathology of sarcomatoid mesothelioma. (×20). a: Hematoxylin & eosin staining. b: Immunohistochemical staining w/ anti-human CD26 antibody revealed CD26 expression in tumor cells. c–e: MIB-1 (Ki67) staining showed a decreased number of MIB-1-positive cells in Y-TR1-treated tumors compared to IgG1- or YS110-treated tumors. Scale bar: 10 μm. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31398954), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - Representative images of immunohistological staining (brown) of OMP-positive (OMP+) cells (A), SOX2+ ORN progenitor cells (B), GAP43+ immature ORNs (C), Ki67+ proliferating cells (D), & cleaved Cas3+ apoptotic cells (E). Each cell except for many OMP+ cells is indicated by arrows. Tissue sections were counterstained with the nuclear dye hematoxylin (blue). Numbers of SOX2+ ORN progenitors & Ki67+ actively proliferating cells per mm of the basal layer & OMP+ mature ORNs, GAP43+ immature ORNs, & Cas3+ apoptotic cells per mm of the OE in saline or rhIGF-1-treated mice. Open circles, rectangles, & triangles represent the values for each mouse in the saline, low-IGF-1, & high-IGF-1 treated groups (each n = 6), respectively. The horizontal lines represent the mean value for each group. □P < 0.05; □□P < 0.01; □□□P < 0.001; & □□□□P < 0.0001 (one-way ANOVA). Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30515092), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - (A) Serum immunoglobin E (IgE) levels of the control & cigarette smoke solution (CSS)-treated mice were determined by enzyme linked immunosorbent assay. (B) Representative images of Sirius red staining for eosinophils & periodic acid-Schiff & Alcian blue (PAS/AB) staining for goblet cells in the nasal RM of the control mice & mice treated with 10 doses of CSS (CSS 10). (C) Representative immunohistochemical images of neutrophils & Ki67+ dividing cells in the nasal RM (400× magnification), & comparative charts of Ki67+ cell counts (n = 6, Mann–Whitney U test). (D) Representative images of olfactory marker protein (OMP)+ mature olfactory receptor neurons (ORNs) in two different areas of the olfactory epithelium: the nasal septum & upper lateral area. There were no significant differences in the number of OMP + mature ORNs between the control & CSS-treated mice (n = 6, Mann–Whitney U test). OVA, ovalbumin. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32132898), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunohistochemistry: Ki67/MKI67 Antibody (SP6) - Unpurified [NB600-1252] - (A,B) Representative images of hematoxylin & eosin (H&E)-stained sections of the olfactory epithelium from young adult mice (A, 40× magnification; B, 400× magnification). A black line in (A) indicates the range for counting the number of each cell type. The box in (A) indicates the region of the olfactory epithelium shown at a representative higher magnification in (B). Differences in the number of OMP+ mature olfactory receptor neurons (ORNs) (C), SOX2+ ORN progenitors (D), Ki-67+ proliferating cells (E), GAP43+ immature ORNs (F), & cleaved Cas3+ apoptotic cells (G) in the OE were evaluated by immunohistological staining (brown). Tissue sections were counterstained with the nuclear dye hematoxylin (blue). Representative images (400× magnification) of tissues stained with antibodies against olfactory marker protein (OMP), SRY (sex determining region Y)-box 2 (SOX2), Ki-67 (antigen identified by monoclonal antibody Ki-67), growth associated protein 43 (GAP43), & cleaved caspase 3 (CAS3) are shown. The number of cells per mm of basal layer length (C–G) was counted manually. Data represent the mean ± SD. **P < 0.01 (n = 6, Mann–Whitney U-test). Image collected & cropped by CiteAb from the following publication (http://journal.frontiersin.org/article/10.3389/fnagi.2018.00086/full), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

MOROKI T, MATSUO S, HATAKEYAMA H et al. Databases for technical aspects of immunohistochemistry-2021 update Journal of Toxicologic Pathology 2021-02-24 [PMID: 33976473]

Garbati P, Barbieri R, Cangelosi D et al. MCM2 and Carbonic Anhydrase 9 Are Novel Potential Targets for Neuroblastoma Pharmacological Treatment Biomedicines 2020-11-03 [PMID: 33153038]

Koob A, Le T, Winham C et al. Chimera RNA interference knockdown of gamma-synuclein in human cortical astrocytes results in mitotic catastrophe Neural Regen Res 2020-04-03 [PMID: 32246638]

Leone MA, Gelati M, Profico DC et al. Phase I clinical trial of intracerebroventricular transplantation of allogeneic neural stem cells in people with progressive multiple sclerosis Cell stem cell 2023-11-21 [PMID: 38016468]

Tateishi K, Miyake Y, Nakamura T et al. Genetic alterations that deregulate RB and PDGFRA signaling pathways drive tumor progression in IDH2-mutant astrocytoma Acta neuropathologica communications 2023-11-27 [PMID: 38012788] (IHC-P, Mouse)

Hwang J, Cho Y, Ryu J et al. Ulipristal acetate, a selective progesterone receptor modulator, induces cell death via inhibition of STAT3/CCL2 signaling pathway in uterine sarcoma Biomedicine & Pharmacotherapy 2023-12-01 [PMID: 37924789] (IHC-P, Human)

Tsubosaka A, Komura D, Kakiuchi M et al. Stomach encyclopedia: Combined single-cell and spatial transcriptomics reveal cell diversity and homeostatic regulation of human stomach Cell reports 2023-10-31 [PMID: 37819756] (Mouse)

Bernabé-Rubio M, Ali S, Bhosale PG et al. Myc-dependent dedifferentiation of Gata6+ epidermal cells resembles reversal of terminal differentiation Nature cell biology 2023-09-21 [PMID: 37735598] (IHC-Fr, Mouse)

Details:
IHC-Fr: 1:50

Mori E, Ueha R, Kondo K et al. Squamous and Respiratory Metaplasia After Olfactory Mucosal Resection Frontiers in Neuroscience 2021-07-20 [PMID: 34354563] (Immunohistochemistry)

Ueha R, Ito T, Furukawa R et al. Oral SARS-CoV-2 Inoculation Causes Nasal Viral Infection Leading to Olfactory Bulb Infection: An Experimental Study Frontiers in Cellular and Infection Microbiology 2022-06-13 [PMID: 35770069]

Goto T, Ueha R, Sato T, Yamasoba T. Effects of early local administration of high-dose bFGF on a recurrent laryngeal nerve injury model Journal of Otolaryngology - Head & Neck Surgery 2023-07-24 [PMID: 37488610] (Immunohistochemistry)

Chang CS, Ryu JY, Choi JK et al. Anti-cancer effect of fenbendazole-incorporated PLGA nanoparticles in ovarian cancer Journal of Gynecologic Oncology 2023-04-24 [PMID: 37170725] (Immunohistochemistry, Immunohistochemistry-Paraffin)

More publications at http://www.novusbio.com/NB600-1252

Procedures

Immunohistochemistry-Paraffin Protocol Specific for NB600-1252: Ki67 Antibody (SP6)

Materials

1) 1 Phosphate buffered saline (pH 7.6): NaCl 137mmol/L, KCl 2.7mmol/L, Na2HPO4 4.3mmol/L, KH2PO4 1.4 mmol/L
2) Citrate buffer, 0.01 M, pH6.0, Sodium Citrate 3g, Citric acid 0.4g
3) 3% Hydrogen peroxide
4) Primary antibody
5) Blocking serum (normal serum)
6) Biotinylated secondary antibody
7) DAB staining kit

Methods

1. Dewax and hydration of slides using xylene and EtOH:
Dry slides for 20 min in a 60 C oven
Add Xylene, 2 x 10 min
100%, 95%, 80%, and 70% EtOH, 5 min each EtOH concentration
Rinse in PBS, 5'

2 Antigen retrieval method (only for paraffin slides)
1a. High-pressure antigen retrieval procedure (recommended method)
Place slides in a glass slide holder (ensure that the slide holder is completely filled with slides, slides without sections if necessary, to ensure even heating. The entire slide holder is immersed in 1000 ml of Citrate buffer (0.01M, pH6.0) within a pressure cooker
Once steam is produced, and ONLY when steam is visible, from the pressure cooker (usually 15-20 min), the required high-pressure will have been reached, and slides will be incubated for 2 min.
Turn off heat, and allow buffer and slides to cool to room temperature
Slides are then rinsed in PBS for 5 minutes
2. Add 3% hydrogen peroxide solution, 10'at RT, then PBS, 3X5'
3. Normal blocking serum, 20'at RT
4. Incubate with Primary Ab, 4C overnight or 1.5 hours at 37C
5. Rinse with PBS, 3 X 5' each rinse
6. Add Biotin-conjugated second antibody, 10'at RT
7. Rinse with PBS, 3 X 5' each rinse
8. Add Streptavidin-Peroxidase, 10'at RT
9. Rinse with PBS, 3 X 5' each rinse
10. Staining with DAB solution, 2-5'under microscope
11. Stop the reaction by washing in tap water
12. Counterstain in Haematoxylin for 3-5 minutes
13. 75%, 80%, 95% and 100% ethanol, 5x2', xylene 2 x 10'

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 NB600-1252

NB820-59272	Human Tonsil Whole Tissue Lysate (Adult Whole Normal)
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/NB600-1252

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