

Product Datasheet

PCNA Antibody (PC10) NB500-106

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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NB500-106

PCNA Antibody (PC10)

| Product Information | |
|-----------------------------|---|
| Unit Size | 0.1 ml |
| Concentration | 1 mg/ml |
| Storage | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| Clonality | Monoclonal |
| Clone | PC10 |
| Preservative | 0.05% Sodium Azide |
| Isotype | IgG2a Kappa |
| Purity | Protein A purified |
| Buffer | Tris-Glycine, 0.15M NaCl |
| Target Molecular Weight | 30 kDa |
| Product Description | |
| Host | Mouse |
| Gene ID | 5111 |
| Gene Symbol | PCNA |
| Species | Human, Mouse, Rat, Porcine, Chicken, Drosophila, Fish, Marsupial, Primate, Rabbit, Yeast, Zebrafish |
| Reactivity Notes | Use in Mouse reported in scientific literature (PMID:33802807). Use in Marsupial reported in scientific literature (PMID:29253253). |
| Marker | Proliferation Marker |
| Specificity/Sensitivity | Specific for PCNA p36 protein expressed at high levels in proliferating cells. |
| Immunogen | Protein A-rat PCNA fusion obtained from pC2T |
| Product Application Details | |
| Applications | Western Blot, Simple Western, Chromatin Immunoprecipitation, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP), Immunohistochemistry Free-Floating |
| Recommended Dilutions | Western Blot 1:2000, Simple Western 1:200, Chromatin Immunoprecipitation 1:10 - 1:500. Use reported in scientific literature (PMID 26883631), Flow Cytometry 1:10-1:1000, ELISA reported in scientific literature, Immunohistochemistry 1:10-1:500, Immunocytochemistry/Immunofluorescence 1:1000-1:2000. Use reported in scientific literature (PMID 22068968), Immunoprecipitation 1:100, Immunohistochemistry-Paraffin 1:500-1:1000, Immunohistochemistry-Frozen 1:10-1:500, Immunohistochemistry Free-Floating reported in scientific literature (PMID 27212918), Chromatin Immunoprecipitation (ChIP) 1:10-1:500 |

Application Notes

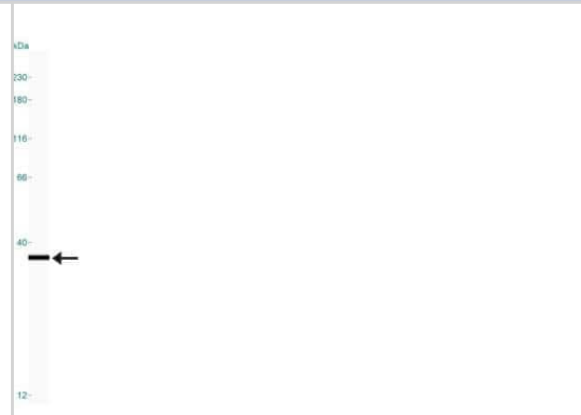
It detects a band at 30 kDa by Western blot. For IHC on paraffin sections, heat-mediated citrate buffer antigen retrieval is recommended.

In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue.

The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

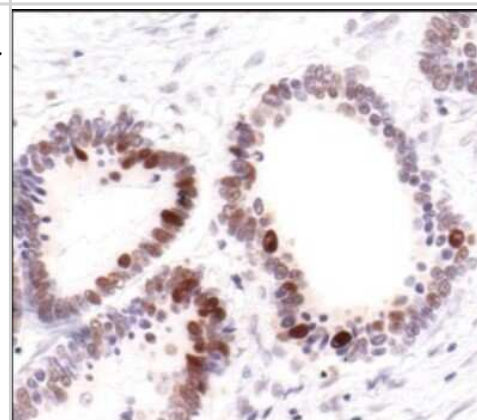
Simple Western: PCNA Antibody (PC10) [NB500-106] - Image shows a specific band for PCNA in 0.5 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



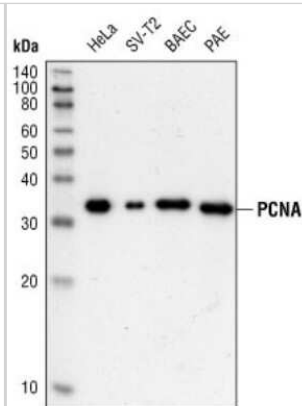
Immunocytochemistry/Immunofluorescence: PCNA Antibody (PC10) [NB500-106] - NIH3T3 cells were fixed and permeabilized for 10 minutes using -20C MeOH. The cells were incubated with anti-PCNA Antibody (PC10) NB500-106 at 1 ug/ml overnight at 4C and detected with an anti-mouse Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



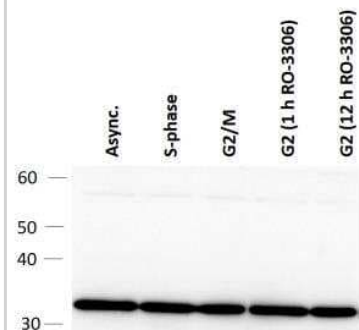
Immunohistochemistry-Paraffin: PCNA Antibody (PC10) [NB500-106] - Analysis of paraffin-embedded human colon carcinoma, showing nuclear localization.



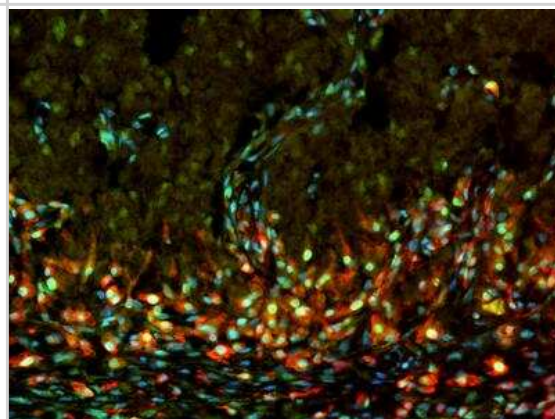
Western Blot: PCNA Antibody (PC10) [NB500-106] - Analysis of human (HeLa lysate), murine (SV-T2 lysate), bovine (BAEC lysate), and porcine (PAE lysate) cell extracts.



Western Blot: PCNA Antibody (PC10) [NB500-106] - Western blot of PCNA levels across different stages of the cell cycle. U-2 OS cells were synchronised at G1/S with 2 mM thymidine and released for 10 hours for G2/M or re-arrested in G2 for extended duration with 10uM RO-3306. Antibody at 1:2000. WB image submitted by a verified customer review.



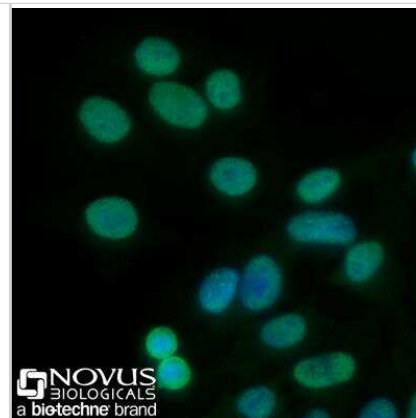
Immunohistochemistry-Frozen: PCNA Antibody (PC10) [NB500-106] - Paraformaldehyde fixed frozen section of brain from murine embryo using PCNA antibody clone PC10 (green), an IB4 antibody (red) and DAPI. Image provided by Dr. Siegenthaler via product review.



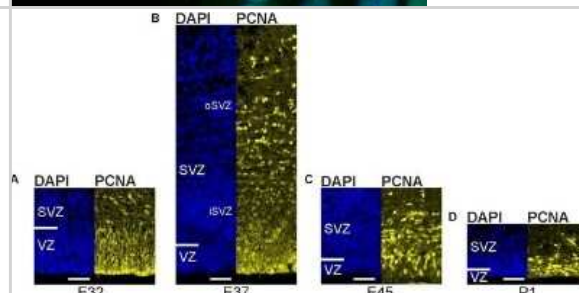
Immunocytochemistry/Immunofluorescence: PCNA Antibody (PC10) [NB500-106] - PC12 cells were fixed and permeabilized for 10 minutes using -20C MeOH. The cells were incubated with anti-PCNA Antibody (PC10) NB500-106 at 1 ug/ml overnight at 4C and detected with an anti-mouse Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



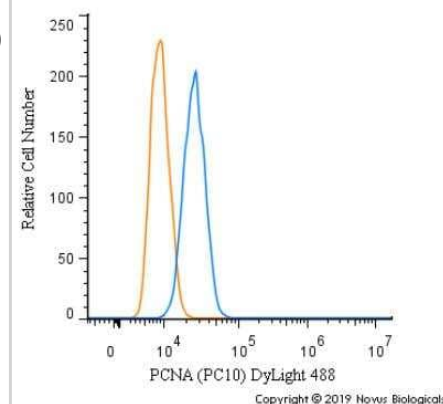
Immunocytochemistry/Immunofluorescence: PCNA Antibody (PC10) [NB500-106] - HeLa cells were fixed and permeabilized for 10 minutes using cold (-20C) MeOH. The cells were incubated with anti-PCNA [PC10] at 5 ug/mL overnight at 4C and detected with an anti-mouse IgG DyLight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



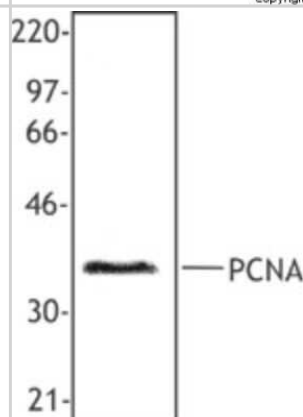
Immunohistochemistry: PCNA Antibody (PC10) [NB500-106] - Development of the germinal zones in the tree shrew neocortex. Immunofluorescence for PCNA (yellow) and DAPI staining (blue) on 30 um-cryosections of E32-P1 tree shrew neocortex. The top margin of the image corresponds to the transition zone SVZ/intermediate zone. Scale bars, 50 um. VZ, ventricular zone; SVZ, subventricular zone; iSVZ, inner SVZ; oSVZ, outer SVZ. Image collected and cropped by CiteAb from the following publication (<http://journal.frontiersin.org/article/10.3389/fnana.2018.00029/full>), licensed under a CC-BY license.



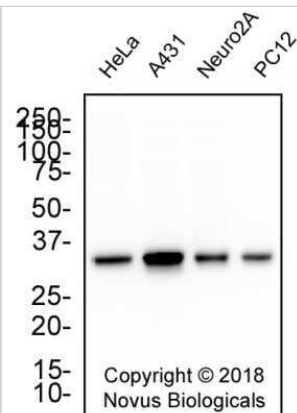
Flow Cytometry: PCNA Antibody (PC10) [NB500-106] - An intracellular stain was performed on HepG2 cells with PCNA Antibody (PC10) NB500-106G (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to DyLight 488.



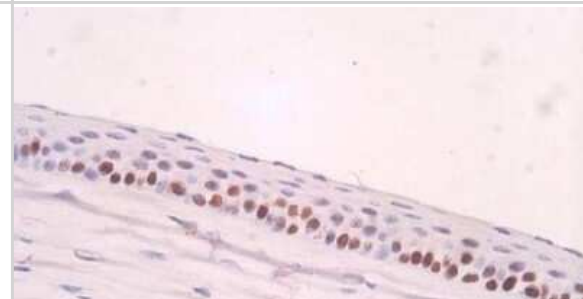
Western Blot: PCNA Antibody (PC10) [NB500-106] - HeLa cell nuclear extract was resolved by electrophoresis, transferred to nitrocellulose and probed with monoclonal anti-PCNA antibody. Proteins were visualized using a goat anti-mouse secondary conjugated to HRP and a chemiluminescence detection system.



Western Blot: PCNA Antibody (PC10) [NB500-106] - Whole cell protein from human HeLa, A431, mouse Neuro2A and rat PC12 cells was separated on a 4-20% gel by SDS-PAGE, transferred to 0.2 um PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 1.0 ug/mL anti-Histone h3 in block buffer and detected with an anti-mouse HRP secondary antibody using chemiluminescence.



Immunohistochemistry: PCNA Antibody (PC10) [NB500-106] - Analysis of PCNA in mouse cornea. Image courtesy of product review by Bo-Yie Chen.



Publications

Meligy FY, El-Deen Mohammed HS, Mostafa TM et al. Therapeutic Potential of Mesenchymal Stem Cells versus Omega n - 3 Polyunsaturated Fatty Acids on Gentamicin-Induced Cardiac Degeneration *Pharmaceutics* 2022-06-22 [PMID: 35890218] (IHC-P, Rat)

Details:

Dilutions: 1:100

Lundine D, Annor GK, Chavez V et al. The C-terminus of Gain-of-Function Mutant p53 R273H Is Required for Association with PARP1 and Poly-ADP-Ribose *Molecular cancer research : MCR* 2022-12-02 [PMID: 36074101] (WB, Human)

Parker K, Zeng F, Zhan Y et al. Altered DNA repair related proteins in Parkinson's disease model VMAT2 Lo mice *Research Square* 2022-10-26 (IHC-FrFI, Mouse)

Rothermund K, Calabrese TC, Syed-Picard FN Differential Effects of Escherichia coli- Versus Porphyromonas gingivalis-derived Lipopolysaccharides on Dental Pulp Stem Cell Differentiation in Scaffold-free Engineered Tissues *Journal of endodontics* 2022-11-01 [PMID: 36108879]

Chung H, Moon S, Kang S Et al. Corneal Epithelial Removal with a Newly Designed Epithelial Brush *J Ophthalmol* 2022-02-14 [PMID: 35154818]

Martins RR, Zamzam M, Tracey-White D et al. MULLer Glia maintain their regenerative potential despite degeneration in the aged zebrafish retina *Aging cell* 2022-03-22 [PMID: 35315590] (IF/IHC, Fish)

Bender H, Fietz Sa, Richter F, Stanojlovic M Alpha-Synuclein Pathology Coincides With Increased Number of Early Stage Neural Progenitors in the Adult Hippocampus *Frontiers in cell and developmental biology* 2021-07-07 [PMID: 34307368] (IF/IHC)

Sakurai R, Singh H, Wang Y et al. Effect of Perinatal Vitamin D Deficiency on Lung Mesenchymal Stem Cell Differentiation and Injury Repair Potential *American journal of respiratory cell and molecular biology* 2021-06-14 [PMID: 34126864]

Rossi G, Placidi M, Castellini C et al. Crocetin Mitigates Irradiation Injury in an In Vitro Model of the Pubertal Testis: Focus on Biological Effects and Molecular Mechanisms *Molecules* 2021-03-17 [PMID: 33802807] (WB, Mouse)

Sikorski K, Mehta A et al. A high-throughput pipeline for validation of antibodies. *Nat Methods* 2018-01-11 [PMID: 30377371] (Human)

Details:

Antibody validation based on denaturing gel electrophoresis of biotinylated cell lysates (PAGE) followed by mass spectrometry (MS) and antibody array analysis (MAP).

Sauerland C, Menzies B R et al. The Basal Radial Glia Occurs in Marsupials and Underlies the Evolution of an Expanded Neocortex in Therian Mammals. *Cereb Cortex* 2018-01-01 [PMID: 29253253] (IF/IHC, Marsupial)

Details:

Macropus eugenii (Tammar wallaby)

Martins R, Zamzam M, Moosajee M et al. Age-related degeneration leads to gliosis but not regeneration in the zebrafish retina *bioRxiv* 2020-06-30 (IF/IHC, Zebrafish)

More publications at <http://www.novusbio.com/NB500-106>



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Products Related to NB500-106

| | |
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| NBL1-14184 | PCNA Overexpression Lysate |
| HAF007 | Goat anti-Mouse IgG Secondary Antibody [HRP] |
| NB720-B | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin] |
| NBP1-96981-0.5mg | Mouse IgG2a Kappa Isotype Control (M2AK) |

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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