

# Product Datasheet

## p53 Antibody (PAb 240) NB200-103

Unit Size: 0.1 ml

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

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

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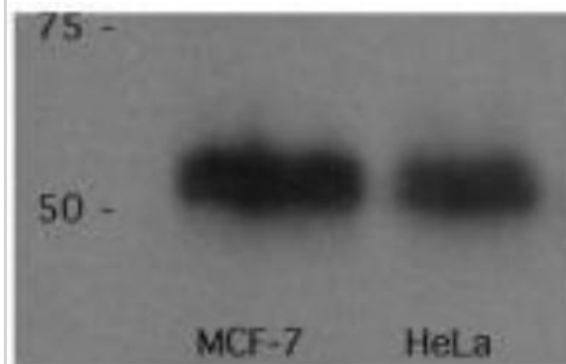
**NB200-103**

p53 Antibody (PAb 240)

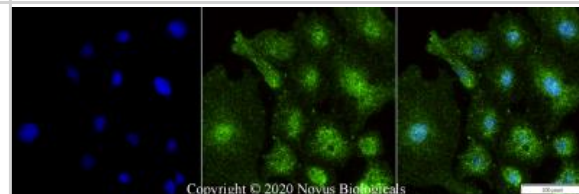
<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	PAb 240
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG1 Kappa
<b>Purity</b>	Protein G purified
<b>Buffer</b>	PBS
<b>Product Description</b>	
<b>Host</b>	Mouse
<b>Gene ID</b>	7157
<b>Gene Symbol</b>	TP53
<b>Species</b>	Human, Mouse, Rat, Chicken, Yeast, Xenopus (Negative)
<b>Reactivity Notes</b>	Yeast reactivity reported in scientific literature (PMID: 8710879)
<b>Specificity/Sensitivity</b>	This monoclonal recognizes both mutant forms and wild-type human p53 under denaturing conditions. It does not recognize nondenatured wild type p53. In nondenaturing conditions (IP) it only recognizes mutant p53.
<b>Immunogen</b>	Gel-purified p53-beta-galactosidase fusion protein containing murine p53 from aa 14-389 (derived from pSV53C cDNA clone).
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, ELISA, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, CyTOF-ready
<b>Recommended Dilutions</b>	Western Blot 1:1000-1:2000, Flow Cytometry 1:10-1:1000, ELISA 1:100-1:2000, Immunohistochemistry 1:250-1:500, Immunocytochemistry/Immunofluorescence 5 ug/ml, Immunoprecipitation 10ug/mg, Immunohistochemistry-Paraffin 1:250-1:500, Immunohistochemistry-Frozen, Flow (Intracellular), CyTOF-ready
<b>Application Notes</b>	Antigen retrieval with IHC-P is not essential but may optimize staining. In IP this antibody reacts with only mutant p53 protein under non-denaturing conditions. Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID: 1394225) Use in Immunohistochemistry-Frozen reported in various pieces of scientific literature. This antibody is CyTOF ready.

## Images

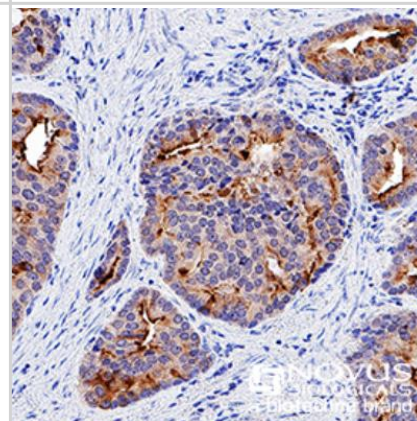
**Western Blot: p53 Antibody (PAb 240) [NB200-103] - Analysis of p53 in MCF7 and HeLa lystates.** Image courtesy of anonymous customer product review.



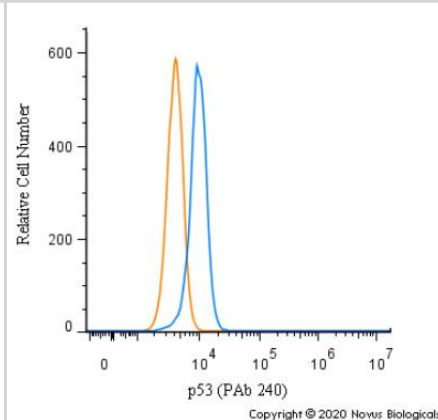
**Immunocytochemistry/Immunofluorescence: p53 Antibody (PAb 240) [NB200-103]** - PC12 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-p53 Antibody (PAb 240) NB200-103 at 2 ug/ml overnight at 4C and 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 40X objective.



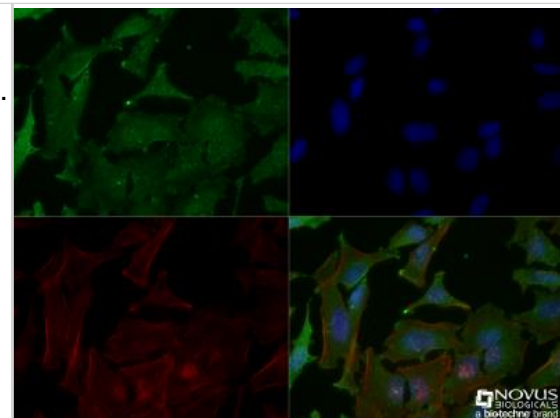
**Immunohistochemistry-Paraffin: p53 Antibody (PAb 240) [NB200-103]** - p53 was detected in immersion fixed paraffin-embedded sections of human prostate cancer using anti-human mouse monoclonal antibody (Catalog # NB200-103) at 1:200 dilution overnight at 4C. Tissue was stained using the VisuCyte anti-mouse HRP polymer detection reagent (Catalog # VC001) with DAB chromogen (brown) and counterstained with hematoxylin (blue). Images may not be copied, printed or otherwise disseminated without express written permission of Novus Biologicals a bio-techne brand.



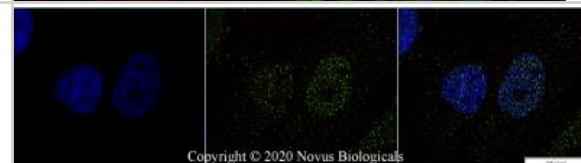
**Flow Cytometry: p53 Antibody (PAb 240) [NB200-103]** - An intracellular stain was performed on HeLa cells with p53 Antibody [PAb 240] NB200-103 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).



Immunocytochemistry/Immunofluorescence: p53 Antibody (PAb 240) [NB200-103] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with anti-p53 (PAb 240) [NB200-103] at a 1:200 dilution overnight at 4C and detected with an anti-mouse DyLight 488 (Green) at a 1:500 dilution. Actin was detected with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



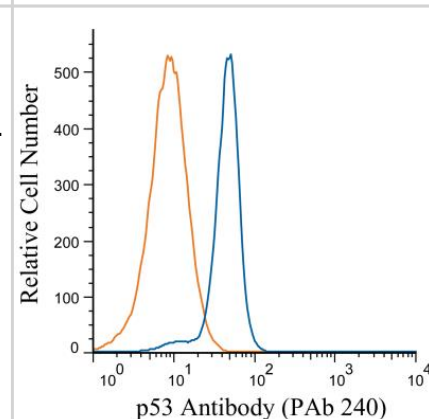
Immunocytochemistry/Immunofluorescence: p53 Antibody (PAb 240) [NB200-103] - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-p53 Antibody (PAb 240) NB200-103 at 2 ug/ml overnight at 4C and detected 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.



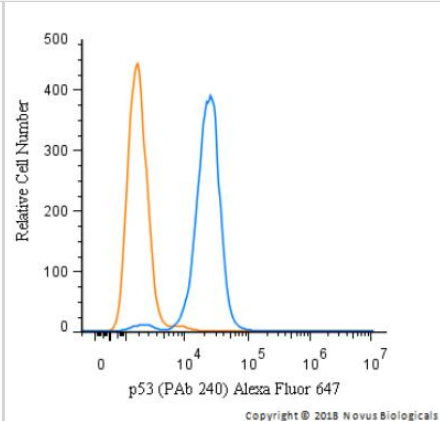
Immunocytochemistry/Immunofluorescence: p53 Antibody (PAb 240) [NB200-103] - Neuro2a cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-p53 Antibody (PAb 240) NB200-103 at 2 ug/ml overnight at 4C and detected 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.



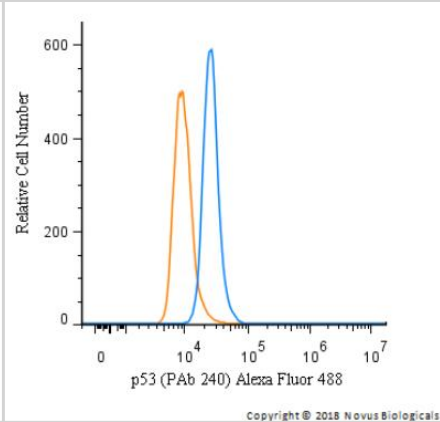
Flow (Intracellular): p53 Antibody (PAb 240) [NB200-103] - An intracellular stain was performed on HeLa cells with p53 (PAb240) NB200-103 (blue) and a matched isotype control NBP2-27287 (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by APC-conjugated anti-mouse IgG secondary antibody F0101B.



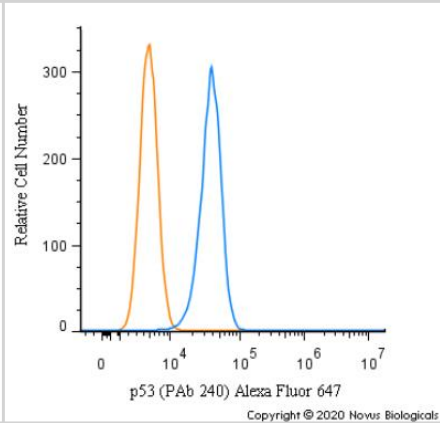
Flow Cytometry: p53 Antibody (PAb 240) [NB200-103] - An intracellular stain was performed on HeLa cells with p53 (PAb240) NB200-103AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



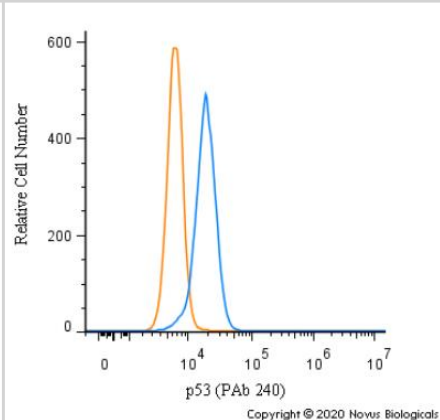
Flow Cytometry: p53 Antibody (PAb 240) [NB200-103] - An intracellular stain was performed on A549 cells with p53 (PAb240) NB200-103AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



Flow Cytometry: p53 Antibody (PAb 240) [NB200-103] - An intracellular stain was performed on MCF7 cells with p53 [PAb 240] Antibody NB200-103AF647 (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 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



Flow Cytometry: p53 Antibody (PAb 240) [NB200-103] - An intracellular stain was performed on Neuro2a cells with p53 Antibody [PAb 240] NB200-103 (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 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).



## Publications

Sikorski K, Mehta A et al. A high-throughput pipeline for validation of antibodies. *Nat Methods* Jan 11 2018 12:00AM [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).

Wang C, Yuan W, Hu A et al. Dexmedetomidine alleviated sepsis induced myocardial ferroptosis and septic heart injury *Mol Med Rep* Jul 1 2020 12:00AM [PMID: 32377745] (WB, Mouse)

Investigation of platinum nanoparticle properties against U87 glioblastoma multiforme. Kutwin M, Sawosz E, Jaworski S *Arch Med Sci* Jul 8 2005 12:00AM [PMID: 29181062] (ICC/IF, Human)

Yang Y, Karsli-Uzunbas G, Poillet-Perez L et Al. Autophagy promotes mammalian survival by suppressing oxidative stress and p53 *Genes Dev.* Mar 19 2020 12:00AM [PMID: 32193353] (IHC-P, IHC)

Marinho TS, Borges CC, Aguila MB, Mandarim-de-Lacerda CA Intermittent fasting benefits on alpha- and beta-cell arrangement in diet-induced obese mice pancreatic islet J. *Diabetes Complicat.* Nov 26 2019 12:00AM [PMID: 31866258] (WB, Mouse)

Tran TM, Guha R, Portugal S et al. A Molecular Signature in Blood Reveals a Role for p53 in Regulating Malaria-Induced Inflammation Immunity. 2019 Oct 15 [PMID: 31492649]

### Details:

Citation used the Alexa Fluor 647 format of this antibody.

Yang, X;Zhao, T;Feng, L;Shi, Y;Jiang, J;Liang, S;Sun, B;Xu, Q;Duan, J;Sun, Z; PM2.5-induced ADRB2 hypermethylation contributed to cardiac dysfunction through cardiomyocytes apoptosis via PI3K/Akt pathway *Environ Int* Apr 12 2019 12:00AM [PMID: 30986742] (WB, Human)

Graham NA, Minasyan A, Lomova A et al. Recurrent patterns of DNA copy number alterations in tumors reflect metabolic selection pressures. *Mol. Syst. Biol.* 2017 Feb 15 [PMID: 28202506] (WB, Mouse)

Shi M, Ma L, Zhou L, Fu P Renal Protective Effects of 17-Estradiol on Mice with Acute Aristolochic Acid Nephropathy. *Molecules* Jul 8 1905 12:00AM [PMID: 27763560] (WB, Human)

Ge X, Pettan-Brewer C, Morton J et al. Mitochondrial catalase suppresses naturally occurring lung cancer in old mice. *Pathobiol Aging Age Relat Dis* 2015 Sep 24 [PMID: 26400209] (IHC, Mouse)

Setiawati A. Cytotoxic Activity of Anredera cordifolia Leaf Extract on HeLa Cervical Cancer Cells through p53-Independent Pathway *Asian Journal of Pharmaceutical and Clinical Research* 2015 Feb 07 (ICC/IF, Human)

### Details:

p53 antibody used for immunocytostaining application with DAB detection on HeLa cells treated or not with Anredera cordifolia leaf extract or 40um cisplatin - 5 minutes fixation, 15 minutes incubation with H2O2, 1 hour primary incubation, detection with biotinylated goat anti-polyvalent secondary antibody and DAB staining followed by counter staining with hematoxylin (Fig. 6).

Biswas AK, Mitchell DL, Johnson DG. E2F1 Responds to Ultraviolet Radiation by Directly Stimulating DNA Repair and Suppressing Carcinogenesis. *Cancer Res.* 2014 Apr 16 [PMID: 24741006] (IHC-P, Mouse)

More publications at <http://www.novusbio.com/NB200-103>





### **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  
novus@novusbio.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: technical@novusbio.com  
Orders: orders@novusbio.com  
General: novus@novusbio.com

### **Products Related to NB200-103**

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NBL1-17203	p53 Overexpression Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP (Horseradish Peroxidase)]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Light Chain Isotype Control (P3.6.2.8.1)

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### **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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