

# Product Datasheet

## 53BP1 Antibody Pack

### NB100-926SuperNovusPack

Unit Size: 2 Each

Store at -20C.

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



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Updated 10/23/2024 v.20.1

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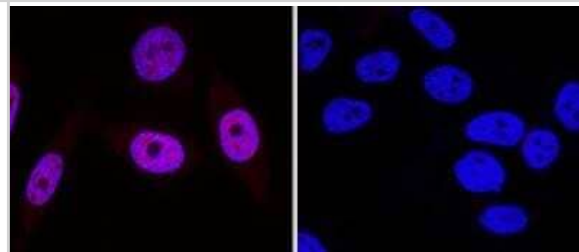


**NB100-926SuperNovusPack****53BP1 Antibody Pack**

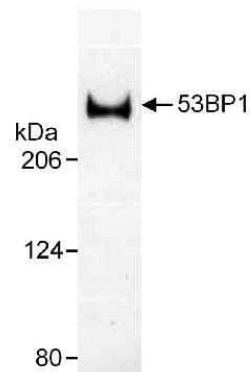
<b>Product Information</b>	
<b>Unit Size</b>	2 Each
<b>Concentration</b>	Concentration of individual antibodies may be found on the vial label. If unlisted please contact technical services.
<b>Storage</b>	Store at -20C.
<b>Preservative</b>	0.09% Sodium Azide
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	Tris-citrate/phosphate buffer, pH 7 to 8
<b>Product Description</b>	
<b>Description</b>	This pack contains 1 vial each of: NB100-304 (0.1 mL) and NB100-305 (0.1 mL).
<b>Gene ID</b>	7158
<b>Gene Symbol</b>	TP53BP1
<b>Species</b>	Human, Mouse, Rat, Bat, Bovine, Canine, Fish, Goat, Naked mole-rat, Primate
<b>Reactivity Notes</b>	Antibodies in this pack are validated for use in the following species: NB100-305: Bat, Bovine, Canine, Human, Mouse, Naked mole-rat, Rat NB100-304: Bat, Bovine, Canine, Fish, Goat, Human, Mouse, Primate, Rat Predicted cross-reactivity based on sequence identity: Chimpanzee (99%), Orangutan (99%), Gorilla (98%), Gibbon (98%), Marmoset (95%)
<b>Specificity/Sensitivity</b>	The antibodies included in 53BP1 Antibody Pack are specific for 53BP1.
<b>Immunogen</b>	See individual datasheets.
<b>Kit Components</b>	NB100-305: 53BP1 Antibody - BSA Free, NB100-304: 53BP1 Antibody - BSA Free
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Flow Cytometry, Flow (Intracellular), Immunoblotting, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, In-situ Hybridization, Chromatin Immunoprecipitation (ChIP), Knockdown Validated, Knockout Validated
<b>Recommended Dilutions</b>	Western Blot, Flow Cytometry, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen, Immunoblotting, In-situ Hybridization, Flow (Intracellular), Chromatin Immunoprecipitation (ChIP), Knockout Validated, Knockdown Validated
<b>Application Notes</b>	Antibodies in this pack are validated for the following applications:  NB100-305: Chromatin Immunoprecipitation, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Knockdown Validated, Western Blot NB100-304: Chromatin Immunoprecipitation, Flow (Intracellular), Flow Cytometry, Immunoblotting, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, In-situ Hybridization, Knockdown Validated, Knockout Validated, Western Blot

## Images

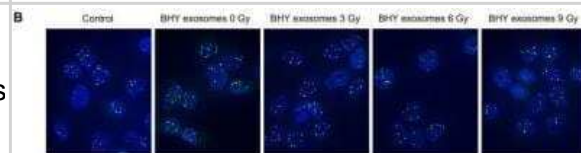
**Knockout Validated: 53BP1 Antibody Pack [NB100-926]** - 53BP1 was detected in immersion fixed HeLa cells (left) but was not detected in 53BP1 knockout HeLa cells (right) using Rabbit Anti-human 53BP1 polyclonal antibody (Catalog #NB100-304) at 0.3 ug/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to nuclei.



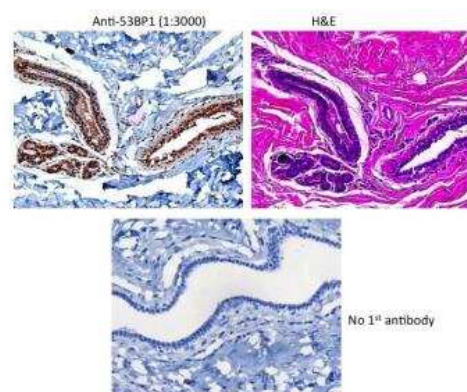
**Western Blot: 53BP1 Antibody Pack [NB100-926]** - Western blot analysis of human 53BP1, blotted with 53BP1 antibody (Catalog #NB100-305). Sample: Whole cell lysate (20 ug/lane) from U2Os cells resolved on a 3 to 8% trisacetate gel. A band appears at approximately the theoretical molecular weight of 214 kDa.



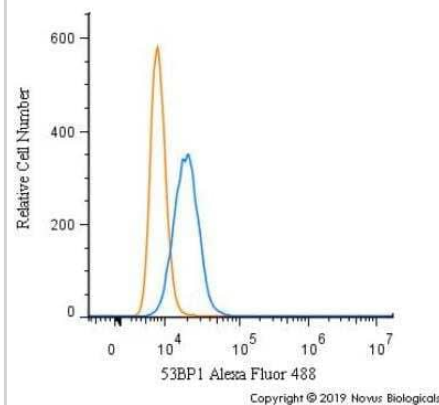
**Immunocytochemistry/Immunofluorescence: 53BP1 Antibody Pack [NB100-926]** - Exosomes modulate the repair of DNA DSBs in irradiated recipient cells. Representative images of 53BP1 foci in BHY cells 6 hours after 2 Gy and transfer of BHY exosomes isolated 24 hours after irradiation with 0, 3, 6 or 9 Gy (53BP1 foci green, nuclei blue) using NB100-305. Image collected and cropped by CiteAb from the following publication ([//dx.plos.org/10.1371/journal.pone.0152213](https://dx.plos.org/10.1371/journal.pone.0152213)), licensed under a CC-BY license.



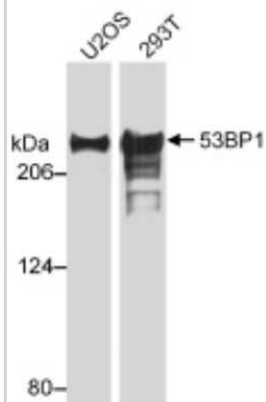
**Immunohistochemistry: 53BP1 Antibody Pack [NB100-926]** - Immunohistochemical analysis of human breast tumors stained with 53BP1 antibody (Catalog #NB100-304). Image from verified customer review.



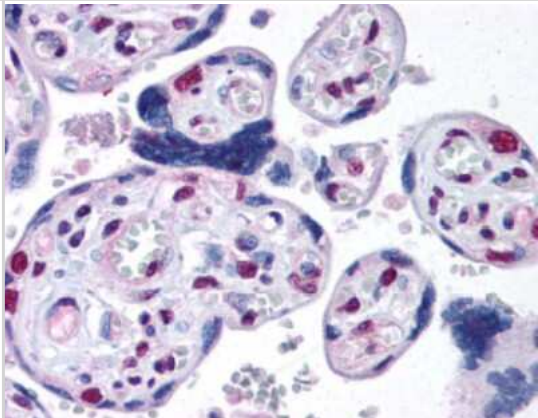
**Flow Cytometry: 53BP1 Antibody Pack [NB100-926]** - An intracellular stain was performed on HeLa cells with 53BP1 Antibody (Catalog #NB100-305AF488) (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



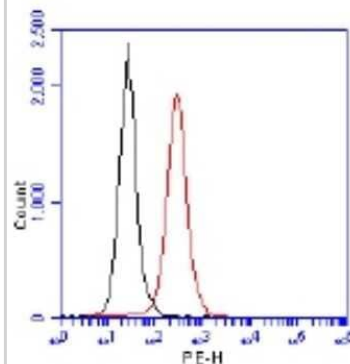
**Western Blot: 53BP1 Antibody Pack [NB100-926]** - Detection of Human [deleted mouse] 53BP1 by Western Blot on Whole cell lysate from U2OS or 293T cells resolved on a 3 to 8% tris-acetate gel using 53BP1 Antibody (Catalog #NB100-304).



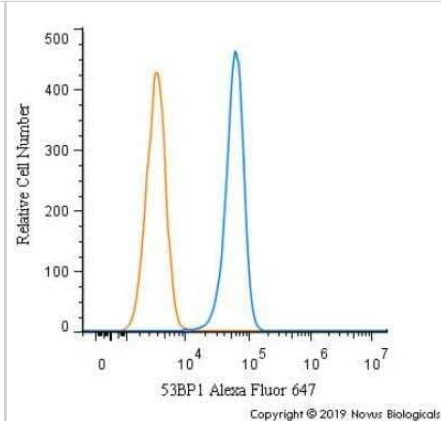
**Immunohistochemistry: 53BP1 Antibody Pack [NB100-926]** - Immunohistochemical staining of placental villi with 53BP1 Antibody (Catalog #NB100-305) at 40X magnification.



**Flow Cytometry: 53BP1 Antibody Pack [NB100-926]** - Detection of 53BP1. 1 million Jurkat cells were fixed, permeabilized, and stained with 1.5 mcg/ml 53BP1 Antibody (Catalog #NB100-304) in a 150 mcl reaction. Isotype control (black), anti-53bp1 (red).



Flow Cytometry: 53BP1 Antibody Pack [NB100-926] - An intracellular stain was performed on RH-30 cells with 53BP1 Antibody (Catalog #NB100-304AF647) (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 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



## Publications

Sten M. Wie, Tariq S. Adwan, James DeGregori, Steven M. Anderson, Mary E. Reyland Inhibiting Tyrosine Phosphorylation of Protein Kinase C $\delta$  (PKC $\delta$ ) Protects the Salivary Gland from Radiation Damage *The Journal of Biological Chemistry* 2014-04-11 [PMID: 24569990]

Cuzzone Daniel A, Weitman Evan S, Albano Nicholas J et al. IL-6 regulates adipose deposition and homeostasis in lymphedema. *Am J Physiol Heart Circ Physiol.* 2014-05-15 [PMID: 24633552]

Su C Tanshinone IIA inhibits human gastric carcinoma AGS cell growth by decreasing BiP, TCTP, Mcl 1 and Bcl xL and increasing Bax and CHOP protein expression. *Int J Mol Med* 2014-01-12 [PMID: 25270224]

Wang W, Le AA, Hou B et al. Memory-Related Synaptic Plasticity Is Sexually Dimorphic in Rodent Hippocampus. *J. Neurosci.* 2018-09-12 [PMID: 30209204]

Zimmermann M, Arachchige-Don AS, Donaldson MS et al. Elevated cyclin G2 expression intersects with DNA damage checkpoint signaling and is required for a potent G2/M checkpoint arrest response to doxorubicin. *J Biol Chem* 2012-06-29 [PMID: 22589537]

Mano M, Ippodrino R, Zentilin L et al. Genome-wide RNAi screening identifies host restriction factors critical for in vivo AAV transduction *Proc Natl Acad Sci U S A.* 2015-09-07 [PMID: 26305933]

Paladino David, Yue Peibin, Furuya Hideki et al. A novel nuclear Src and p300 signaling axis controls migratory and invasive behavior in pancreatic cancer. *Oncotarget* 2016-01-01 [PMID: 26695438]

Arif A, Jia J, Willard B et al. Multisite Phosphorylation of S6K1 Directs a Kinase Phospho-code that Determines Substrate Selection. *Mol. Cell* 2018-12-27 [PMID: 30612880]

Wang Z, Yin H, Zhang Y et al. miR-214-mediated downregulation of RNF8 induces chromosomal instability in ovarian cancer cells. *Cell Cycle* 2014-01-01 [PMID: 25483088] (WB)

Sin HS, Barski A, Zhang F et al. RNF8 regulates active epigenetic modifications and escape gene activation from inactive sex chromosomes in post-meiotic spermatids *Genes Dev* 2012-12-15 [PMID: 23249736] (ICC/IF, IF/IHC, Mouse)

Kang Y, Lee J-H, Hoan NN et al. Protein Phosphatase 5 Regulates the Function of 53BP1 after Neocarzinostatin-induced DNA Damage. *J Biol Chem*;284(15):9845-9853. 2009-01-01 [PMID: 19176521]



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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Antibody Packs are guaranteed for 1 year from date of receipt.

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