

Product Datasheet

RPA2 [p Ser4, p Ser8] Antibody - BSA Free NBP1-23017

Unit Size: 100 ul

Store at 4C. Do not freeze.

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NBP1-23017

RPA2 [p Ser4, p Ser8] Antibody - BSA Free

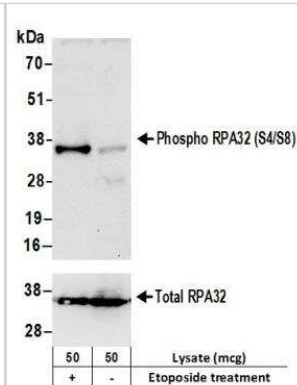
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

Product Description	
Description	Novus Biologicals Rabbit RPA2 [p Ser4, p Ser8] Antibody - BSA Free (NBP1-23017) is a polyclonal antibody validated for use in IHC, WB, ICC/IF, Simple Western and IP. Anti-RPA2 Antibody: Cited in 46 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	6118
Gene Symbol	RPA2
Species	Human, Mouse
Immunogen	Immunogen was a dually phosphorylated synthetic peptide, which represented a portion of human replication protein A2, 32 kDa surrounding phosphorylated serines that corresponded to positions 4 and 8 using the numbering given in entry NP_002937.1 (GeneID

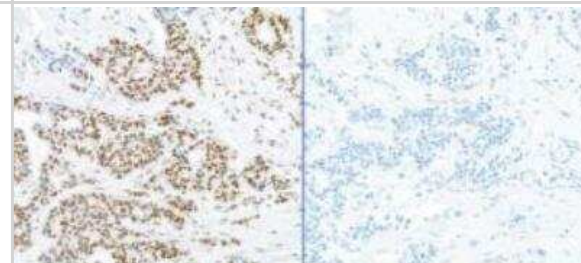
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:2000-1:10000, Simple Western 1:50, Immunohistochemistry 1:500 - 1:2000, Immunocytochemistry/ Immunofluorescence 1:500 - 1:5000, Immunoprecipitation 2-10 ug/mg of lysate, Immunohistochemistry-Paraffin 1:500 - 1:2000, Knockdown Validated
Application Notes	Formaldehyde fixation is recommended. Permeabilization with Triton-X 100 is recommended for formaldehydefixed cells. Epitope retrieval with Tris-EDTA pH9.0 is recommended for FFPE tissue sections. See Simple Western Antibody Database for Simple Western validation: tested in human squamous carcinoma cells; antibody dilution of 1:50; separated by charge



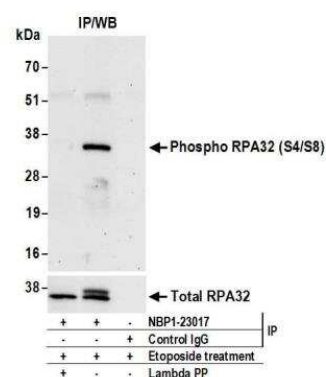
Western Blot: RPA2 [p Ser4, p Ser8] Antibody [NBP1-23017] - Detection of Human Phospho RPA32 (S4/S8) by Western Blot. Samples: Whole cell lysate (50 ug) from HeLa cells treated with 100 uM EPE for 4 hours (+) or mock treated (-) cells. Antibodies: Affinity purified rabbit anti-Phospho RPA32 (S4/S8) antibody NBP1-23017 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds. Lower panel shows Western Blot for total RPA32 using affinity purified rabbit anti-RPA32 antibody A300-244A at 0.1 ug/ml with an exposure time of 30 seconds.



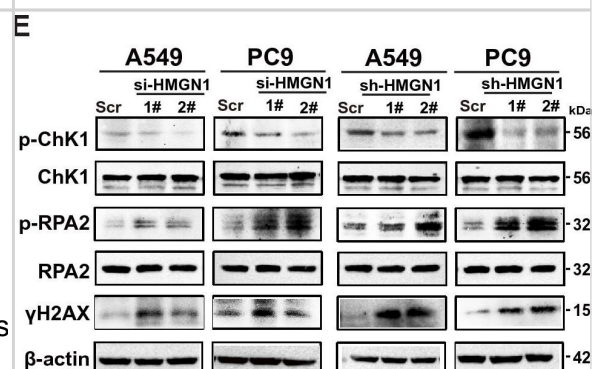
Immunohistochemistry-Paraffin: RPA2 [p Ser4, p Ser8] Antibody [NBP1-23017] - Section of human breast carcinoma, MOCK treatment (left) and CIP treatment (right). Antibody: Affinity purified rabbit anti-Phospho RPA32 (S4/S8) (used at a dilution of 1:1,000 (1ug/ml). Detection: DAB



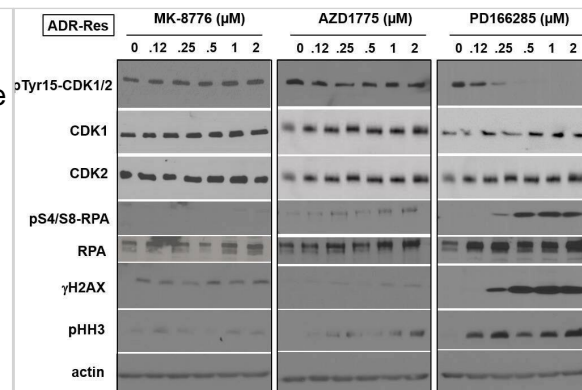
Immunoprecipitation: RPA2 [p Ser4, p Ser8] Antibody [NBP1-23017] - Detection of human Phospho RPA32 (S4/S8) by western blot of immunoprecipitates. Samples: Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells treated with EPE (+) and/or Lambda PP (+) or mock treated (-). Antibodies: RPA32 (S4/S8) was immunoprecipitated using affinity purified rabbit anti-RPA32 antibody NB100-332. For blotting immunoprecipitated Phospho RPA32 (S4/S8), rabbit anti-Phospho RPA32 (S4/S8) antibody NBP1-23017 was used at 0.1 ug/ml. Lower Panel: Rabbit anti-RPA antibody NB100-332. Detection: Chemiluminescence with an exposure time of 75 seconds.



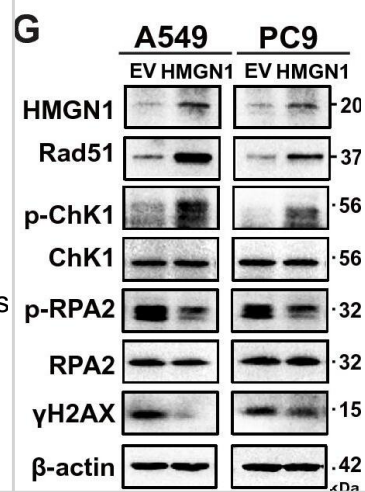
Impact of HMGN1 knockdown on DNA damage response in lung adenocarcinoma. (A) Pearson correlation analysis showing the correlation between HMGN1 expression and RAD51 expression in LUAD. (B, C) RT-qPCR analysis of HMGN1 silencing in A549 and PC9 cells and its effect on RAD51 expression. (D, E) Western blot analysis of Rad51, p-RPA2, γ H2AX and p-Chk1 proteins following HMGN1 depletion. (F) RT-qPCR analysis of RAD51 expression upon ectopic expression of HMGN1. (G) Western blot analysis of Rad51, p-RPA2, γ H2AX and p-Chk1 proteins following HMGN1 overexpression. (G) Quantification of Gamma-H2AX fluorescence foci from three experiments shown as mean +/- SD. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ns: not statistically significant. Image collected and cropped by CiteAb from the following open publication (<https://www.nature.com/articles/s41598-024-60352-8>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Mechanism of resistance of ADR-Res cells to MK-8776. ADR-Res cells were incubated with the indicated concentrations of either MK-8776, AZD1775 or PD166285 for 6 h, then analyzed by western blotting. These cells were only sensitive to PD166285 and only showed increased γ H2AX and pHH3 at concentrations that inhibited pY15-CDK1/2. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/26595527>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Publications

Venkatesan S, Angelova M, Puttick C et al. Induction of APOBEC3 Exacerbates DNA Replication Stress and Chromosomal Instability in Early Breast and Lung Cancer Evolution *Cancer Discovery* 2021-10-01 [PMID: 33947663]

Shinoda K, Zong D, Callen E et al. The dystonia gene THAP1 controls DNA double-strand break repair choice *Molecular cell* 2021-04-06 [PMID: 33857404]

Niu J, Wang J, Zhang Q et al. Cinobufagin-induced DNA damage response activates G(2)/M checkpoint and apoptosis to cause selective cytotoxicity in cancer cells *Cancer Cell International* 2021-12-01 [PMID: 34425836]

Warren NJH, Donahue KL, Eastman A., et Al. Differential Sensitivity to CDK2 Inhibition Discriminates the Molecular Mechanisms of CHK1 Inhibitors as Monotherapy or in Combination with the Topoisomerase I Inhibitor SN38 *ACS Pharmacol Transl Sci* 2020-04-08 [PMID: 32259055]

Gao Y, Guitton-Sert L, Dessapt J et Al. A CRISPR-Cas9 screen identifies EXO1 as a formaldehyde resistance gene *Nat Commun* 2023-01-24 [PMID: 36693839] (Western Blot)

Chen L, Gai X, Yu X. et Al. Pre-rRNA facilitates the recruitment of RAD51AP1 to DNA double-strand breaks *J Biol Chem* 2024-02-24 [PMID: 38403248]

Wu X, Cai G, Feng J et Al. HMGN1 loss sensitizes lung cancer cells to chemotherapy *Sci Rep* 2024-05-06 [PMID: 38710740]

Elfar, GA;Aning, O;Ngai, TW;Yeo, P;Chan, JWK;Sim, SH;Goh, L;Yuan, J;Phua, CZJ;Yeo, JZZ;Mak, SY;Goh, BKP;Chow, PK;Tam, WL;Ho, YS;Cheok, CF; p53-dependent crosstalk between DNA replication integrity and redox metabolism mediated through a NRF2-PARP1 axis *Nucleic acids research* 2024-09-24 [PMID: 39315696]

zhang s, Zhao Y, Wang X et al. Sublethal Auranofin Potentiates Tumor Responses to ATR Inhibition by Inducing Oxidative DNA Damage Selectively in Cancer Cells *SSRN Electronic Journal* 2023-03-20

Zhang S, Zhao Y, Wang X et al. Synergistic lethality between auranofin-induced oxidative DNA damage and ATR inhibition in cancer cells *Life sciences* 2023-11-01 [PMID: 37778414] (Western Blot, Human)

Liao C, Talluri S, Zhao J et al. RAD51 Is Implicated in DNA Damage, Chemoresistance and Immune Dysregulation in Solid Tumors *Cancers* 2022-11-20 [PMID: 36428789] (WB, Human)

de Krijger I, FOhr B, PErez SH et al. MAD2L2 dimerization and TRIP13 control shieldin activity in DNA repair *Nature communications* 2021-09-14 [PMID: 34521823] (WB, Human)

More publications at <http://www.novusbio.com/NBP1-23017>





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Products Related to NBP1-23017

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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