# Product Datasheet

## p53 Antibody (Pab DO-1) - BSA Free
## NBP2-50538

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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**Publications: 3**

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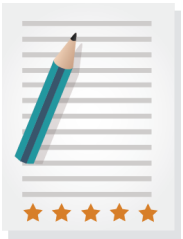
www.novusbio.com/NBP2-50538

Updated 10/23/2024 v.20.1





# NBP2-50538

p53 Antibody (Pab DO-1) - BSA Free

## 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** | Pab DO-1 |
| **Preservative** | 0.02% Sodium Azide |
| **Isotype** | IgG2a |
| **Purity** | Protein A purified |
| **Buffer** | PBS |
| **Target Molecular Weight** | 53 kDa |

## Product Description

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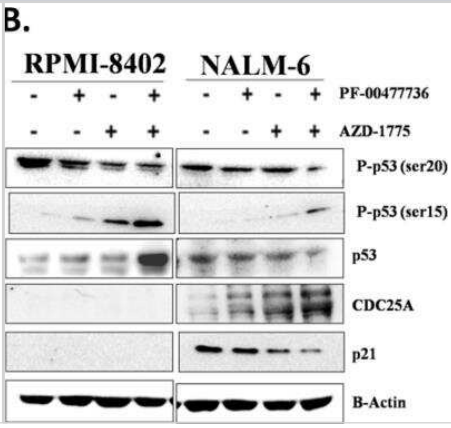
|---|---|
| **Host** | Mouse |
| **Gene ID** | 7157 |
| **Gene Symbol** | TP53 |
| **Species** | Human |
| **Specificity/Sensitivity** | DO-1 recognises wild-type and mutant p53. DO-1 recognises three of the p53 isoforms (p53, p53 beta, p53 gamma). |
| **Immunogen** | Recombinant human wild type p53 protein expressed in E.coli |

## Product Application Details

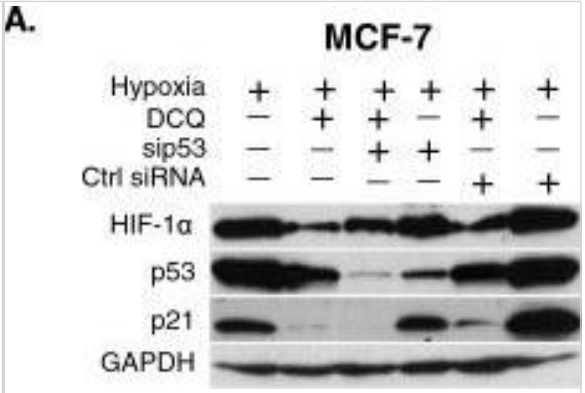
| | |
|---|---|
| **Applications** | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP) |
| **Recommended Dilutions** | Western Blot 1:100 - 1:2000, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 1:10 - 1:500, Chromatin Immunoprecipitation (ChIP) 1:10-1:500 |
| **Application Notes** | Positive control(s): MDA-MB-231 cell line. |

## Images

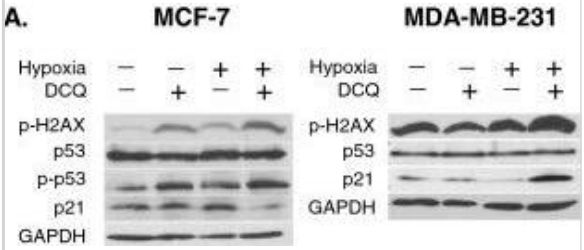
Western Blot: p53 Antibody (Pab DO-1) [NBP2-50538] - B) Western Blot analyses of RPMI-8402 and NALM-6 cell lines treated for 24 h with AZD-1775 (185 nM) and PF-00477736 (25 and 250 nM respectively). B-actin was used for loading normalization. For relative quantification of each protein see Figure S3A and for whole western blot images see Figure S6. Image collected and cropped by CiteAb from the following publication (https://www.mdpi.com/2072-6694/11/11/1654) licensed under a CC-BY license.



Western Blot: p53 Antibody (Pab DO-1) - BSA Free [NBP2-50538] - DCQ reduces HIF-1α through different mechanisms in MCF-7 & MDA-MB-231. (A) MCF-7 cells were transfected with siRNA against p53 & ctrl siRNA (scrambled sequence) using lipofectamine 2000. After 24 hours, cells were treated with DCQ (5 μM) for 6 hours under hypoxia. Whole cell lysates were prepared, & blots were probed against indicated antibodies. (B) MCF-7 cells were transfected with siRNA against p53 & ctrl siRNA (scrambled sequence) using lipofectamine 2000. Transfected cells were treated with DCQ (5 μM) for 6 hours under hypoxia. The extent of DNA fragmentation was determined by TUNEL assay 24 hours later using flow cytometry. One-way ANOVA was used to compare DCQ-treated versus control & statistical significance of $p < 0.05$ is indicated by *. (C) Whole cell lysates were prepared after pretreating MCF-7 & MDA-MB-231 with the proteasome inhibitor MG132 (3 μM) then treated with DCQ, & blots were probed for HIF-1α. Results are from three independent experiments. (D) Whole cell lysates of MCF-7 were prepared after 6 hours of exposure to DCQ (5 μM) under normoxia or hypoxia, & blots were probed for p-AKT, mTOR, p-mTOR & GAPDH. Image collected & cropped by CiteAb from the following publication (https://molecular-cancer.biomedcentral.com/articles/10.1186/1476-4598-13-12), licensed under a CC-BY license. Not internally tested by Novus Biologicals.




Western Blot: p53 Antibody (Pab DO-1) - BSA Free [NBP2-50538] - DCQ induces DNA damage & apoptosis via reactive oxygen species. (A) Whole cell lysates of MCF-7 & MDA-MB-231 were prepared after 6 hours of exposure to DCQ (5 μM) under normoxia or hypoxia, & blots were probed for p-H2AX, p53, p-p53, p21, HIF-1α & GAPDH. Results are representative of three independent experiments. (B) MDA-MB-231 & MCF-7 cells were pretreated with 1 mM Vitamin E or DTT for 2 hours followed by 25 min incubation with 10 μM CM-H2DCFDA dye. Cells were washed with PBS & treated with DCQ for 1 hour under normoxia or hypoxia, after which cells were harvested & the amount of DCF fluorescence was analyzed by flow cytometry. Each percentage is the average ± SE of three independent experiments. (C) MDA-MB-231 & MCF-7 cells were pretreated with 1 mM Vitamin E or DTT for 2 hours followed by 6 hours treatment with DCQ under normoxia or hypoxia. After 24 hours, the extent of DNA fragmentation was determined by TUNEL assay & measured by flow cytometry. One-way ANOVA was used to compare DCQ-treated versus control & statistical significance of $p < 0.05$ is indicated by *. (D) Whole cell lysates of MCF-7 & MDA-MB-231 were prepared after 6 hours of exposure to DCQ (5 μM) under normoxia or hypoxia, & blots were probed for HIF-1α & GAPDH. Results are representative of three independent experiments. Image collected & cropped by CiteAb from the following publication (https://molecular-cancer.biomedcentral.com/articles/10.1186/1476-4598-13-12), licensed under a CC-BY license. Not internally tested by Novus Biologicals.




## Publications

Burmistrov V, Saxena R, Pitushkin D et al. Adamantyl Isothiocyanates as Mutant p53 Rescuing Agents and Their Structure-Activity Relationships Journal of medicinal chemistry 2021-05-27 [PMID: 33961435]

Ghattass K, El-Sitt S, Zibara K et al. The quinoxaline di-N-oxide DCQ blocks breast cancer metastasis in vitro and in vivo by targeting the hypoxia inducible factor-1 pathway. Mol Cancer 2014-01-24 [PMID: 24461075] (WB, Human)

Ghelli Luserna Di RorA , Bocconcelli , Ferrari et al. Synergism Through WEE1 and CHK1 Inhibition in Acute Lymphoblastic Leukemia Cancers 2019-10-25 [PMID: 31717700] (WB, Human)

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## Products Related to NBP2-50538

| | |
|---|---|
| HAF007 | Goat anti-Mouse IgG Secondary Antibody [HRP] |
| NB720-B | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin] |
| NBP1-96778 | Mouse IgG2a Isotype Control (M2A) |
| NBP2-56234PEP | p53 Recombinant Protein Antigen |

### 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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