BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-P53 Tp53 Monoclonal Antibody

**Catalog Number:** MA1078

## About Tp53

The p53 tumor antigen is found in increased amounts in a wide variety of transformed cells. The protein is also detectable in many actively proliferating, nontransformed cells, but it is undetectable or present at low levels in resting cells. This protein induces cell cycle arrest or apoptosis in response to sublethal or severe DNA damage, respectively, by differential transcription of target genes and through transcription-independent apoptotic functions. The p53 protein contains 393 amino acids. Human p53 tumour antigen is Locatedto band 17p13. p53 mutations are common in pancreatic cancer and are absent in chronic pancreatitis.

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## Overview

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|---|---|
| Product Name | Anti-P53 Tp53 Monoclonal Antibody |
| Reactive Species | Human |
| Description | Boster Bio Anti-P53 Tp53 Monoclonal Antibody catalog # MA1078. Tested in IHC, ICC, WB applications. This antibody reacts with Human. |
| Application | IHC, ICC, WB |
| Clonality | Monoclonal BP53-12 |
| Formulation | Mouse IgG in stabilizing components, 1.2% sodium acetate and 0.01mg NaN3. |
| Storage Instructions | Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Mouse |
| Uniprot ID | P10361 |

## Technical Details

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| Immunogen | Recombinant human wild-type p53 protein. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P), IHC(F) and ICC. |

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|---|---|
| Cross Reactivity | No cross-reactivity with other proteins |
| Isotype | Mouse IgG2a |
| Form | Lyophilized |
| Concentration | Adding 1 ml of PBS buffer will yield a concentration of 100 ug/ml. |
| Purification | Ascites |
| Suggested Dilutions | Immunohistochemistry (Paraffin-embedded Section), 0.5-2ug/ml, Human<br>Immunocytochemistry , 1ug/ml, Human, -<br>Immunohistochemistry (Frozen Section), 0.5-2ug/ml, Human, -<br>Western blot, 0.5-1ug/ml, Human |

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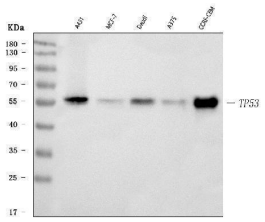
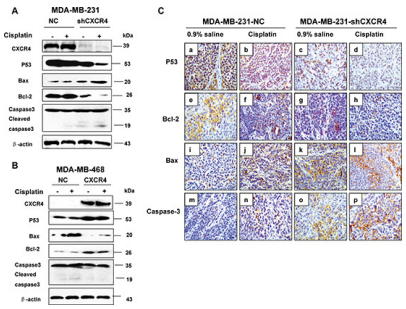
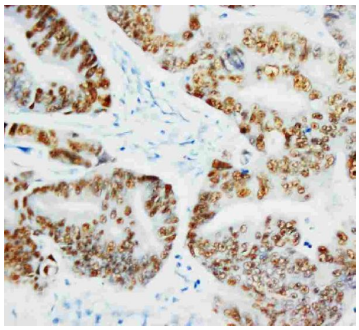
# Anti-P53 Tp53 Monoclonal Antibody (MA1078) Images




Western blot analysis of p53 using anti-p53 antibody (MA1078). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A431 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human Daudi whole cell lysates, Lane 4: human A375 whole cell lysates, Lane 5: human CCRF-CEM whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-p53 antigen affinity purified monoclonal antibody (Catalog # MA1078) at 1 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for p53 at approximately 53 kDa. The expected band size for p53 is at 53 kDa.




The effect of CXCR4 on protein expression and cell cycle associated proteins in TNBC cells. (A) MDA-MB-231-NC and MDA-MB-231-shCXCR4 cells were treated with cisplatin (0, 10 uM) for 48 h, cellular protein was harvested, and Western blot analysis was performed to investigate the levels of mutant p53, Bax, Bcl-2 and caspase-3. The beta-Actin was detected as a loading control. (B) MDA-MB-468-NC and MDA-MB-468-CXCR4 cells were treated with cisplatin (0, 10 uM) for 48 h, cellular protein was harvested, and Western blot analysis was performed to investigate the levels of mutant p53, Bax, Bcl-2 and caspase-3. The beta-Actin was detected as a loading control. (C) Immunohistochemical staining of xenograft tumors for p53, Bax, Bcl-2 and caspase-3 (magnification = 40×).Index in PubMed under a CC BY license. PMID: 25544759



IHC analysis of p53 using anti-p53 antibody (MA1078). p53 was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-p53 Antibody (MA1078) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

IF analysis of p53 using anti-p53 antibody (MA1078). p53

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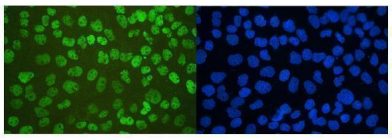

was detected in immunocytochemical section of A431 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti-p53 Antibody (MA1078) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

## 53 Publications Citing This Product

1. PubMed ID: 10.1080/21691401.2019.1709863, Anti-antioxidant impacts of circZNF609 silence in HaCaT cells through regulating miR-145

2. PubMed ID: -, Huixia Zhang,Mengda Liu,Hui Zhang et al.Detection of p53 mutation and serum monitoring alert caused by Marek's disease virus, 11 May 2020, PREPRINT (Version 2) available at Research Square [https://doi.org/10.21203/rs.2.23898/v2]

3. PubMed ID: -, Jiang X,Yuan J,Dou Y,Zeng D, Xiao S.Lipopolysaccharide Affects the Proliferation and Glucose Metabolism of Cervical Cancer Cells Through the FRA1/MDM2/p53 Pathway.Int J Med Sci 2021;18(4): 1030-1038.doi:10. 7150/ijms.47360.

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