

Anti-p53 Antibody [PSH03-95]

HA722074



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse
Applications:	WB, IF-Cell, IP
Molecular Wt:	Predicted band size: 53 kDa
Clone number:	PSH03-95

Description: Acts as a tumor suppressor in many tumor types; induces growth arrest or apoptosis depending on the physiological circumstances and cell type. Involved in cell cycle regulation as a trans-activator that acts to negatively regulate cell division by controlling a set of genes required for this process. One of the activated genes is an inhibitor of cyclin-dependent kinases. Apoptosis induction seems to be mediated either by stimulation of BAX and FAS antigen expression, or by repression of Bcl-2 expression. In cooperation with mitochondrial PPIF is involved in activating oxidative stress-induced necrosis; the function is largely independent of transcription. Induces the transcription of long intergenic non-coding RNA p21 (lincRNA-p21) and lincRNA-Mkln1. LincRNA-p21 participates in TP53-dependent transcriptional repression leading to apoptosis and seem to have to effect on cell-cycle regulation. Implicated in Notch signaling cross-over. Prevents CDK7 kinase activity when associated to CAK complex in response to DNA damage, thus stopping cell cycle progression. Isoform 2 enhances the transactivation activity of isoform 1 from some but not all TP53-inducible promoters. Isoform 4 suppresses transactivation activity and impairs growth suppression mediated by isoform 1. Isoform 7 inhibits isoform 1-mediated apoptosis. Regulates the circadian clock by repressing CLOCK-ARNTL/BMAL1-mediated transcriptional activation of PER2.

Immunogen: Recombinant protein within mouse p53 protein.

Positive control: RAW264.7 cell lysate, Neuro-2a cell lysate, NIH/3T3 treated with 0.5μM doxorubicin cell for 24 hours lysate, NIH/3T3.

Subcellular location: Nucleus. Cytoplasm. Localized in both nucleus and cytoplasm in most cells. In some cells, forms foci in the nucleus that are different from nucleoli.

Database links: SwissProt: P02340 Mouse

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:200
IP	1-2μg/sample

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

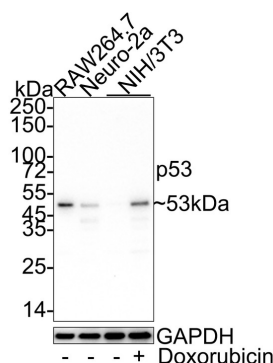
Fig1: Western blot analysis of p53 on different lysates with Rabbit anti-p53 antibody (HA722074) at 1/1,000 dilution.

Lane 1: RAW264.7 cell lysate

Lane 2: Neuro-2a cell lysate

Lane 3: NIH/3T3 cell lysate

Lane 4: NIH/3T3 treated with 0.5 μ M doxorubicin for 24 hours cell lysate



Lysates/proteins at 20 μ g/Lane.

Predicted band size: 53 kDa

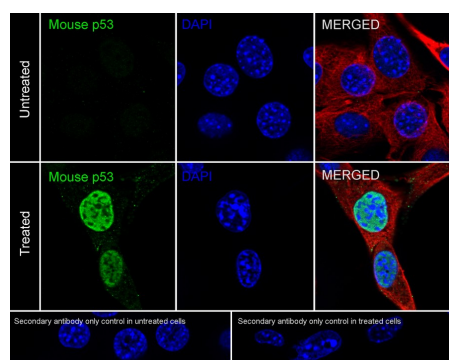
Observed band size: 53 kDa

Exposure time: 3 minutes 20 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722074) at 1/1,000 dilution was used in 5% NFDM/TBST at 4 $^{\circ}$ C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Immunocytochemistry analysis of NIH/3T3 cells treated with 0.5 μ M doxorubicin for 20 hours labeling p53 with Rabbit anti-p53 antibody (HA722074) at 1/200 dilution.



Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-p53 antibody (HA722074) at 1/200 dilution in 1% BSA in PBST overnight at 4 $^{\circ}$ C. Goat Anti-Rabbit IgG H&L (iFluorTM 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4 $^{\circ}$ C. Goat Anti-Mouse IgG H&L (iFluorTM 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

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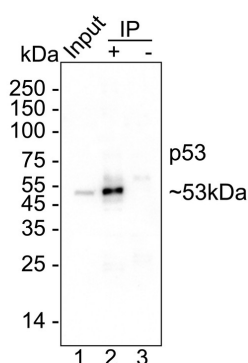


Fig3: p53 was immunoprecipitated in 0.2mg NIH/3T3 treated with 0.5 μ M doxorubicin cell lysate with HA722074 at 2 μ g/10 μ l beads. Western blot was performed from the immunoprecipitate using HA722074 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: NIH/3T3 treated with 0.5 μ M doxorubicin cell lysate (input)

Lane 2: HA722074 IP in NIH/3T3 treated with 0.5 μ M doxorubicin cell lysate

Lane 3: Rabbit IgG instead of HA722074 in NIH/3T3 treated with 0.5 μ M doxorubicin cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST

Exposure time: 1 minute; ECL: K1802

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Louria-Hayon I et al. The promyelocytic leukemia protein protects p53 from Mdm2-mediated inhibition and degradation. J Biol Chem 278:33134-33141 (2003).
2. An W et al. Ordered cooperative functions of PRMT1, p300, and CARM1 in transcriptional activation by p53. Cell 117:735-748 (2004).

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