Anti-p53 Antibody [6B2-R]

HA601322



Product Type: Recombinant Mouse monoclonal IgG1, primary antibodies

Species reactivity: Human, Monkey

Applications: WB, IF-Cell

Molecular Wt: Predicted band size: 53 kDa

Clone number: 6B2-R

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 C-terminal human p53.

Positive control: 293T cell lysate, HT-29 cell lysate, A431 cell lysate, COS-1 cell lysate, A431.

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: P04637 Human

Recommended Dilutions:

WB 1:1,000-2,000

IF-Cell 1:100

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

Storage Instruction: Store at $+4^{\circ}$ C after thawing. Aliquot store at -20° C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Images

 Fig1: Western blot analysis of p53 on different lysates with Mouse anti-p53 antibody (HA601322) at 1/1,000 dilution.

Lane 1: 293T cell lysate Lane 2: HT-29 cell lysate Lane 3: A431 cell lysate Lane 4: COS-1 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 53 kDa Observed band size: 53 kDa

Exposure time: 46 seconds;

4-20% SDS-PAGE gel.

Fig2: Western blot analysis of p53 on different lysates with Mouse anti-p53 antibody (HA601322) at 1/2,000 dilution.

Lane 1: HAP1-parental cell lysate Lane 2: HAP1-p53 KD cell lysate

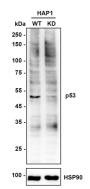
Lysates/proteins at 10 µg/Lane.

Predicted band size: 53 kDa Observed band size: 53 kDa

Exposure time: 80 seconds; ECL: K1801;

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 (HA601322) at 1/2,000 dilution was used in K1803 at $4\,^{\circ}\mathrm{C}$ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.





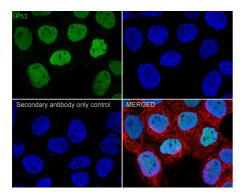


Fig3: Immunocytochemistry analysis of A431 cells labeling p53 with Mouse anti-p53 antibody (HA601322) at 1/100 dilution.

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 Mouse anti-p53 antibody (HA601322) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) 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 (ET1602-4, red) was stained at 1/100 dilution overnight at $+4^{\circ}$ C. Goat Anti-Rabbit IgG H&L (iFluor 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

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).