

Anti-p53 Antibody [SA39-07] - BSA and Azide free

HA750005



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, ChIP
Molecular Wt:	Predicted band size: 53 kDa
Clone number:	SA39-07

Description: Tumor protein P53, also known as p53, cellular tumor antigen p53 (UniProt name), the Guardian of the Genome, phosphoprotein p53, tumor suppressor p53, antigen NY-CO-13, or transformation-related protein 53 (TRP53), is any isoform of a protein encoded by homologous genes in various organisms, such as TP53 (humans) and Trp53 (mice). This homolog (originally thought to be, and often spoken of as, a single protein) is crucial in vertebrates, where it prevents cancer formation. As such, p53 has been described as "the guardian of the genome" because of its role in conserving stability by preventing genome mutation. Hence TP53 is classified as a tumor suppressor gene. The name p53 was given in 1979 describing the apparent molecular mass; SDS-PAGE analysis indicates that it is a 53-kilodalton (kDa) protein. However, the actual mass of the full-length p53 protein (p53 α) based on the sum of masses of the amino acid residues is only 43.7 kDa. This difference is due to the high number of proline residues in the protein, which slow its migration on SDS-PAGE, thus making it appear heavier than it actually is.

Immunogen: Recombinant protein within human p53 aa 1-100.

Positive control: 293T cell lysate, 293T.

Subcellular location: Cytoplasm, Nucleus, Endoplasmic reticulum, Mitochondrion matrix

Database links: SwissProt: P04637 Human

Recommended Dilutions:

WB	1:5,000
IF-Cell	1:400
ChIP	Use 0.5~2 μ g for 25 μ g of chromatin.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

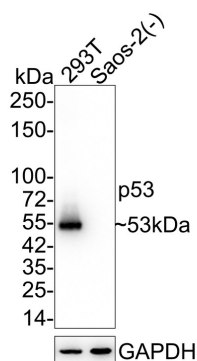
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Western blot analysis of p53 on different lysates with Rabbit anti-p53 antibody (HA750005) at 1/5,000 dilution.

Lane 1: 293T cell lysate
Lane 2: Saos-2 cell lysate (negative)



Lysates/proteins at 20 µg/Lane.

Predicted band size: 53 kDa

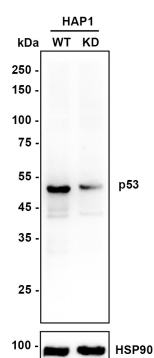
Observed band size: 53 kDa

Exposure time: 43 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 (HA750005) at 1/5,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of p53 on different lysates with Rabbit anti-p53 antibody (HA750005) at 1/5,000 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: 6 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 (HA750005) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4 °C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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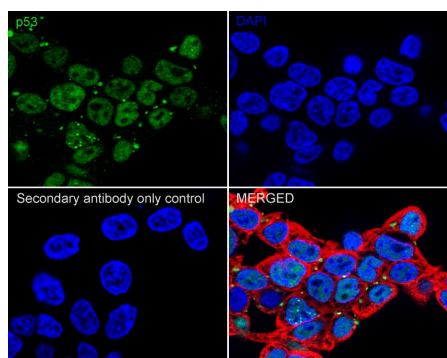
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Fig3: Immunocytochemistry analysis of 293T cells labeling p53 with Rabbit anti-p53 antibody (HA750005) at 1/400 dilution.



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 (HA750005) at 1/400 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 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°C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

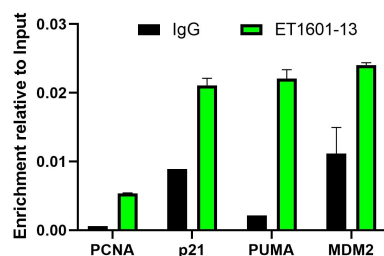


Fig4: Chromatin immunoprecipitations were performed with cross-linked chromatin from HCT 116 treated with UV for 40minutes then recover for 3 hours cells with p53 (HA750005) or Normal Rabbit IgG according to the ChIP protocol. The enriched DNA was quantified by real-time PCR using indicated primers. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.

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

Background References

1. "WOX1 is essential for tumor necrosis factor-, UV light-, staurosporine-, and p53-mediated cell death, and its tyrosine 33-phosphorylated form binds and stabilizes serine 46-phosphorylated p53." Chang N.-S., Doherty J., Ensign A., Schultz L., Hsu L.-J., Hong Q. J. Biol. Chem. 280:43100-43108(2005).
2. "Protein kinase C delta regulates Ser46 phosphorylation of p53 tumor suppressor in the apoptotic response to DNA damage." Yoshida K., Liu H., Miki Y. J. Biol. Chem. 281:5734-5740(2006).

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