Anti-p53 (acetyl K382) Antibody [PSH06-88] HA722763

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell
Molecular Wt:	Predicted band size: 53 kDa
Clone number:	PSH06-88

Description: p53, a DNA-binding, oligomerization domain- and transcription activation domain-containing tumor suppressor, upregulates growth arrest and apoptosis-related genes in response to stress signals, thereby influencing programmed cell death, cell differentiation, and cell cycle control mechanisms. p53 localizes to the nucleus, yet can be chaperoned to the cytoplasm by the negative regulator, MDM2. MDM2 is an E3 ubiquitin ligase that is upregulated in the presence of active p53, where it poly-ubiquitinates p53 for proteasome targeting. p53 fluctuates between latent and active DNA-binding conformations and is differentially activated through posttranslational modifications, including phosphorylation and acetylation. Mutations in the DNA-binding domain (DBD) of p53, amino acids 110-286, can compromise energetically-favorable association with cis elements and are implicated in several human cancers.

Immunogen: Synthetic peptide within human p53 (acetyl K382) aa 344-393.

Positive control: HepG2 starved overnight treated with 30μg/mL etoposide for 7 hours then add 500ng/mL TSA for 3 hours cell lysate, HeLa cells treated with 500ng/mL TSA for 4 hours.

Subcellular location: Cytoplasm, Nucleus, Nucleus, PML body, Endoplasmic reticulum, Mitochondrion matrix, Cytoplasm, cytoskeleton, microtubule organizing center, centrosome.

Database links: SwissProt: P04637 Human

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:200

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

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

Purity: Protein A affinity purified.

Images

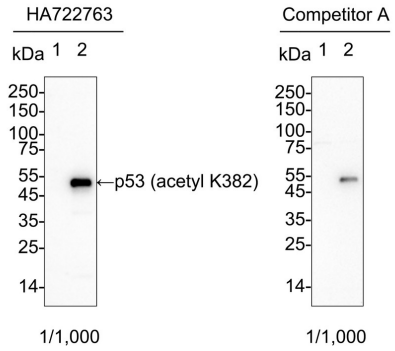

Fig1: Western blot analysis of p53 (acetyl K382) on different lysates with Rabbit anti-p53 (acetyl K382) antibody (HA722763) at 1/1,000 dilution and competitor's antibody at 1/1,000 dilution.

Lane 1: HepG2 cell lysate
Lane 2: HepG2 starved overnight treated with 30μg/mL etoposide for 7 hours then add 500ng/mL TSA for 3 hours cell lysate

Lysates/proteins at 20 μg/Lane.

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

Exposure time: 3 minutes; 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 (HA722763) at 1/1,000 dilution and competitor's antibody at 1/1,000 dilution were used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

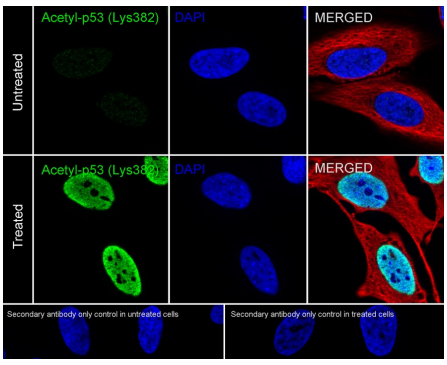

Fig2: Immunocytochemistry analysis of HeLa cells treated with 500ng/mL TSA for 4 hours labeling p53 (acetyl K382) with Rabbit anti-p53 (acetyl K382) antibody (HA722763) at 1/200 dilution.

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 (acetyl K382) antibody (HA722763) at 1/200 dilution in 1% BSA in PBST overnight at 4 ℃. 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℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

Background References

1. Hu J et al. Targeting mutant p53 for cancer therapy: direct and indirect strategies. J Hematol Oncol. 2021 Sep
2. Hassin O et al. Drugging p53 in cancer: one protein, many targets. Nat Rev Drug Discov. 2023 Feb