Anti-Phospho-Chk1 (S317) Antibody [PSH03-84] HA722050

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	PSH03-84

Description: Checkpoint kinases (Chks) are protein kinases that are involved in cell cycle control. Two checkpoint kinase subtypes have been identified, Chk1 and Chk2. Chk1 is a central component of genome surveillance pathways and is a key regulator of the cell cycle and cell survival. Chk1 is required for the initiation of DNA damage checkpoints and has recently been shown to play a role in the normal (unperturbed) cell cycle. Chk1 impacts various stages of the cell cycle including the S phase, G2/M transition and M phaase. In addition to mediating cell cycle checkpoints, Chk1 also contributes to DNA repair processes, gene transcription, egg production, embryo development, cellular responses to HIV infection and somatic cell viability.

Immunogen: Synthetic phospho-peptide corresponding to residues surrounding Ser317 of Human Chk1.

Positive control: HeLa cell lysate, HeLa treated with UV for 1 hour cell lysate, C6 cell lysate, C6 treated with 100nM Calyculin A for 30 minutes cell lysate, HeLa cells treated with or without UV for 40 minutes, NIH/3T3 cell lysate, NIH/3T3 treated with UV for 40 minutes add 1mM Sodium orthovanadate and recovery for 30 minutes cell lysate, L-929 treated with UV for 3 hours cell lysate.

Subcellular location: Nucleus, Chromosome, Cytoplasm, cytoskeleton, microtubule organizing center, centrosome.

Database links: SwissProt: O14757 Human | O35280 Mouse | Q91ZN7 Rat

Recommended Dilutions:

WB	1:1,000
IHC-P	1:1,000

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

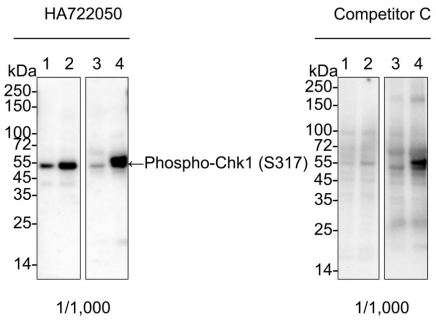

Fig1: Western blot analysis of Phospho-Chk1 (S317) on different lysates with Rabbit anti-Phospho-Chk1 (S317) antibody (HA722050) at 1/1,000 dilution and competitor's antibody at 1/1,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: HeLa treated with UV for 1 hour cell lysate
Lane 3: C6 cell lysate
Lane 4: C6 treated with 100nM Calyculin A for 30 minutes cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 54 kDa
Observed band size: 54 kDa

Exposure time: 43 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 (HA722050) 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.

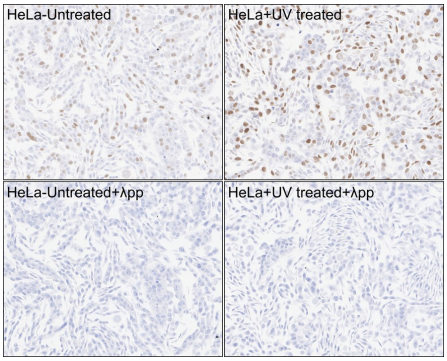

Fig2: Immunohistochemical analysis of paraffin-embedded HeLa cells treated with or without UV for 40 minutes with Rabbit anti-Phospho-Chk1 (S317) antibody (HA722050) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722050) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

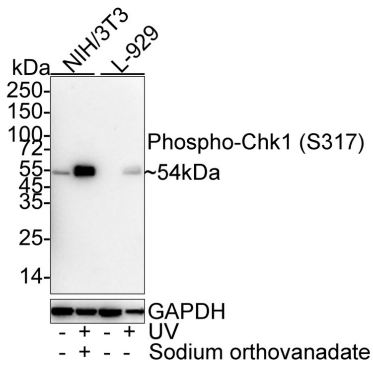

Fig3: Western blot analysis of Phospho-Chk1 (S317) on different lysates with Rabbit anti-Phospho-Chk1 (S317) antibody (HA722050) at 1/1,000 dilution.

Lane 1: NIH/3T3 cell lysate
Lane 2: NIH/3T3 treated with UV for 40 minutes add 1mM Sodium orthovanadate and recovery for 30 minutes cell lysate
Lane 3: L-929 cell lysate
Lane 4: L-929 treated with UV for 3 hours cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 54 kDa
Observed band size: 54 kDa

Exposure time: 1 minute;

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 (HA722050) at 1/1,000 dilution was 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.

Background References

1. Klomp JE et al. CHK1 protects oncogenic KRAS-expressing cells from DNA damage and is a target for pancreatic cancer treatment. Cell Rep. 2021 Nov
2. Zhu X et al. TRIM21 suppresses CHK1 activation by preferentially targeting CLASPIN for K63-linked ubiquitination. Nucleic Acids Res. 2022 Feb