Anti-Histone H3 (acetyl K18) Antibody

HA500047

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	15 kDa

Description: Eukaryotic histones are basic and water soluble nuclear proteins that form hetero-octameric nucleosome particles by wrapping 146 base pairs of DNA in a left-handed super-helical turn sequentially to form chromosomal fibers. Two molecules of each of the four core histones (H2A, H2B, H3 and H4) form the octamer, which is comprised of two H2A-H2B dimers and two H3-H4 dimers, forming two nearly symmetrical halves by tertiary structure. Histones are subject to posttranslational modification by enzymes primarily on their N-terminal tails, but also in their globular domains. Human and mouse Histone H4 are subject to methylation at Lys 20, a modification that may be necessary for select DNA transactions or chromatin state transitions.

Immunogen: Synthetic peptide within human Histone H3 (acetyl K18) aa 1-50.

Positive control: Hela cell lysate , untreated, Hela cell lysate, treated with Sodium Butyrate 0.5mM for 24h, Hela cell lysate, treated with trichostatin at 500 ng/ml for 4h, mouse colon, HeLa cells treated with 500ng/mL Trichostatin A for 4 hours.

Subcellular location: Chromosome, Nucleosome core, Nucleus.

Database links: SwissProt: P68431 Human | P84243 Human | Q16695 Human | Q71DI3 Human | Q6NXT2 Human

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:100-1:500
IF-Cell	1:500

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

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

Purity: Immunogen affinity purified.

Images

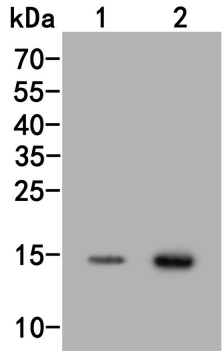

Fig1: Western blot analysis of Histone H3 (acetyl K18) on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (HA500047, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: Hela cell lysate, untreated
Lane 2: Hela cell lysate, treated with Sodium Butyrate 0.5mM for 24h

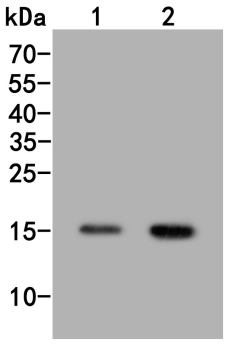

Fig2: Western blot analysis of Histone H3 (acetyl K18) on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (HA500047, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: Hela cell lysate, untreated
Lane 2: Hela cell lysate, treated with trichostatin at 500 ng/ml for 4h

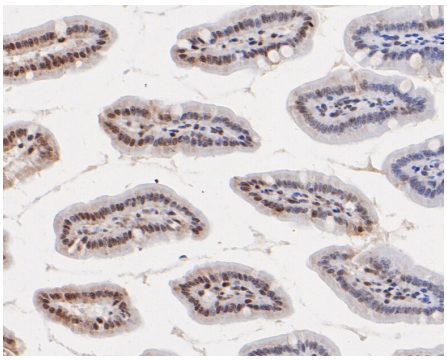

Fig3: Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-Histone H3 (acetyl K18) antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500047, 1/400) for 30 minutes 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.

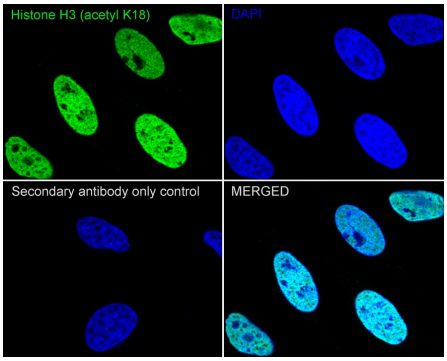

Fig4: Immunocytochemistry analysis of HeLa cells treated with 500ng/mL Trichostatin A for 4 hours labeling Histone H3 (acetyl K18) with Rabbit anti-Histone H3 (acetyl K18) antibody (HA500047) at 1/500 dilution.

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-Histone H3 (acetyl K18) antibody (HA500047) at 1/500 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.

Background References

1. Wilson J.P. et. al. Proteomic analysis of fatty-acylated proteins in mammalian cells with chemical reporters reveals S-acylation of histone H3 variants. Mol. Cell. Proteomics 10:M110.001198-M110.001198(2011).