Anti-Histone H3 (acetyl K27) Antibody

HA500046

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, ChIP
Molecular Wt:	Predicted band size: 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 K27) aa 1-50.

Positive control: Hela treated with TSA whole cell lysate, NIH/3T3 treated with TSA whole cell lysate, Hela cell lysate treated with Sodium Butyrate 0.5mM for 24h, human skin tissue, mouse colon tissue, human colon tissue, human colon carcinoma tissue.

Subcellular location: Chromosome, Nucleosome core, Nucleus.

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

Recommended Dilutions:

WB	1:500-1:2,000
IHC-P	1:100-1:500
ChIP	Use 0.5~2 μg for 25 μg of chromatin.

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

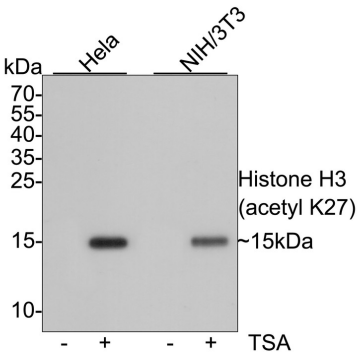

Fig1: Western blot analysis of Histone H3 (acetyl K27) on different lysates with Rabbit anti-Histone H3 (acetyl K27) antibody (HA500046) at 1/2,000 dilution.

Lane 1: Untreated Hela whole cell lysates
Lane 2: Hela treated with TSA whole cell lysate
Lane 3: Untreated NIH/3T3 whole cell lysates
Lane 4: NIH/3T3 treated with TSA whole cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 15 kDa
Observed band size: 15 kDa

Exposure time: 1 minute;

15% 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 (HA500046) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

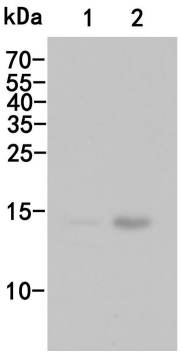

Fig2: Western blot analysis of Histone H3 (acetyl K27) on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (HA500046, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP 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

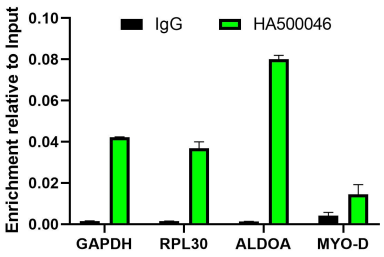

Fig3: Chromatin immunoprecipitations were performed with cross-linked chromatin from HeLa cells treated with 500ng/mL TSA for 4 hours and either Histone H3 (acetyl K27) (HA500046) or Normal Rabbit IgG according to the ChIP protocol. The enriched DNA was quantified by real-time PCR using indicated primers. 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.

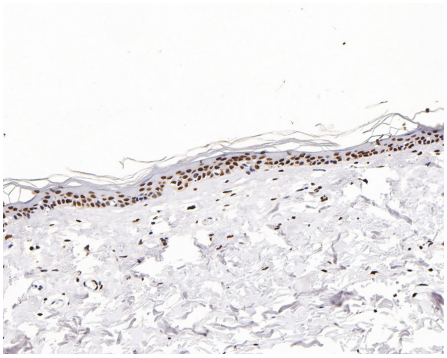

Fig4: Immunohistochemical analysis of paraffin-embedded human skin tissue with Rabbit anti-Histone H3 (acetyl K27) antibody (HA500046) at 1/1,000 dilution.

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 (HA500046) 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.

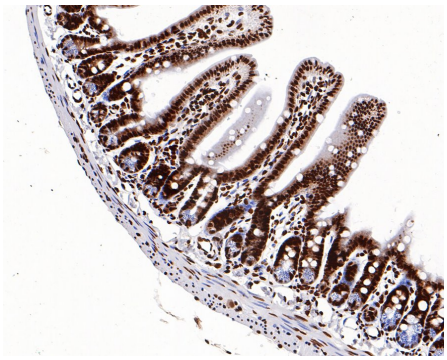

Fig5: Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-Histone H3 (acetyl K27) antibody (HA500046) at 1/1,000 dilution.

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 (HA500046) 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.

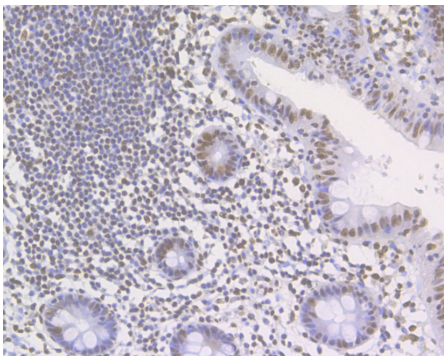

Fig6: Immunohistochemical analysis of paraffin-embedded human colon tissue using anti-Histone H3 (acetyl K27) antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500046, 1/500) 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.

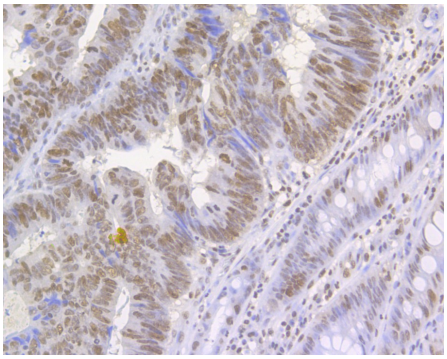

Fig7: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-Histone H3 (acetyl K27) antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500046, 1/500) 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.

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).