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Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody

(Catalog #A-4708)

Background
Histones are proteins found in eukaryotic cell nuclei that package and order the DNA into structural units called nucleosomes. Nucleosomes consist of about 146-147 bp of DNA wrapped around an octamer of histone proteins (histone 2A, histone 2B, histone 3, and histone 4). The N-terminal tails of histones protrude from the globular nucleosome core and can undergo several different types of epigenetic modifications that influence cellular processes. The interaction of a linker histone, H1, with DNA between nucleosomes, facilitates the compaction of chromatin into higher-order structures. This gene is without introns and encodes a histone H3 family member. Transcripts from this gene are missing a polyA tail. As an alternative, they contain palindromic termination elements. This gene is located independently from the other H3 genes. Most H3 genes are found in the histone gene cluster on chromosome 6p22-p21. 3.

Description
Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

Specificity
Broad Range, Human, Mouse, Rat

Formulation
Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Isotype
IgG

Uniprot ID
Q16695/P68431

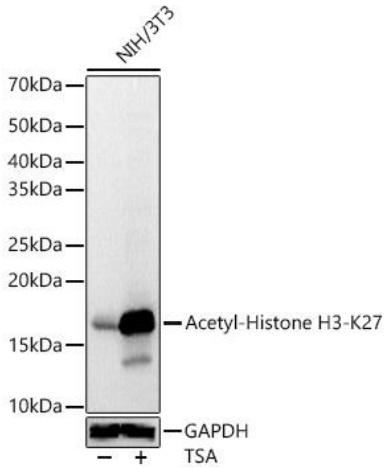
Purification
Affinity Purified

Immunogen
A synthetic acetylated peptide around K27 of human Histone H3 (NP_003520.1).

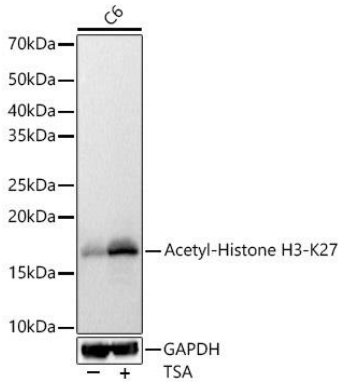
Storage
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

Alternative Names
H3t, H3.4, H3/g, H3FT, H3K27ac

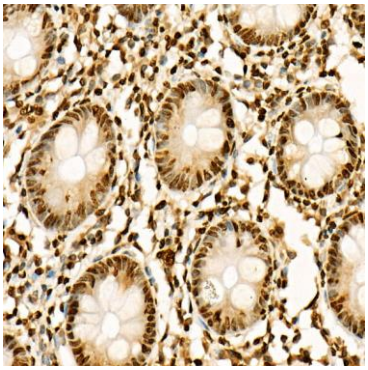
Application
WB, IHC, IF/ICC, IP, ChIP, ChIP-seq, ELISA; Recommended dilution: WB 1:1000 – 1:5000, IHC 1:50 – 1:200, IF/ICC 1:50 – 1:200, IP 0.5ug-4ug antibody for 200ug-400ug extracts of whole cells, ChIP 5µg antibody for5µg-10µg of Chromatin, ChIP-seq 1:20 – 1:100, ELISA - recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.



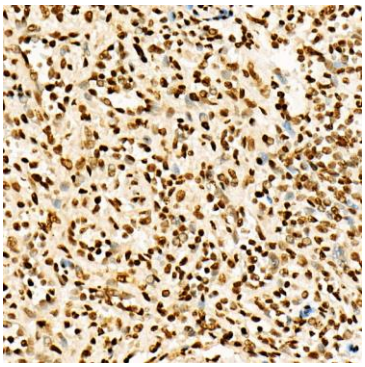
Western blot analysis of lysates from NIH/3T3 cells, using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at 1:2000 dilution. NIH/3T3 cells were treated by TSA (1 uM) at 37℃ for 18 hours. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25μg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Exposure time: 1s.



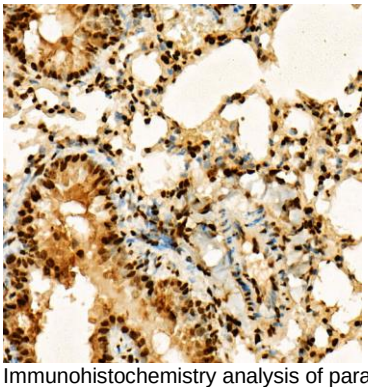
Western blot analysis of lysates from C6 cells, using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at 1:2000 dilution.C6 cells were treated by TSA (1 uM) at 37℃ for 18 hours. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25μg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Exposure time: 1s.



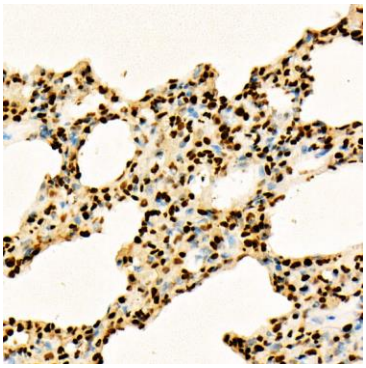
Immunohistochemistry analysis of paraffin-embedded Human colon using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



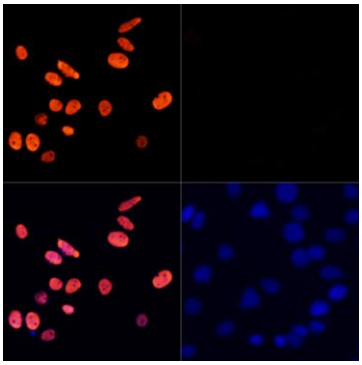
Immunohistochemistry analysis of paraffin-embedded Human spleen using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



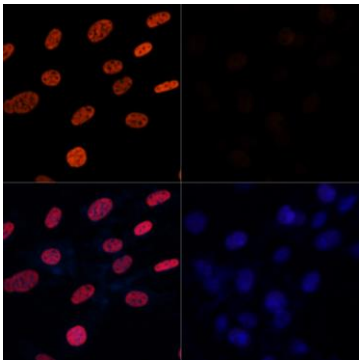
Immunohistochemistry analysis of paraffin-embedded Mouse lung using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



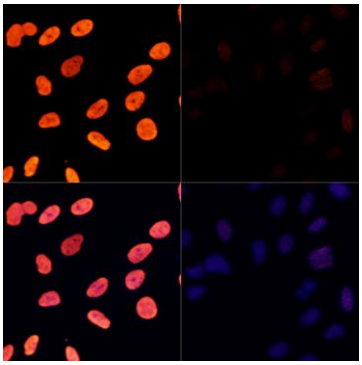
Immunohistochemistry analysis of paraffin-embedded Rat lung using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



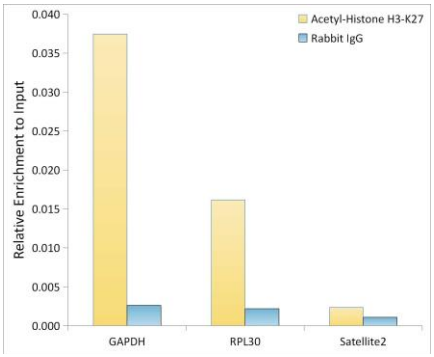
Immunofluorescence analysis of C6 cells treated by TSA (upper left) and untreated C6 cells (upper right) using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH-3T3 cells treated by TSA (upper left) and untreated NIH-3T3 cells(upper right) using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U-2 OS cells treated by TSA (upper left) and untreated U-2 OS cells (upper right) using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Chromatin immunoprecipitation was performed with cross-linked chromatin from 293T, using Histone H3K27ac (Acetyl H3K27) Polyclonal Antibody and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram constructed the ratios of the ratio of the immunoprecipitated DNA versus the input.