

Acetyl-Histone H3-K56 Rabbit mAb

Catalog No.: A22565 **Recombinant** **2 Publications**

Basic Information

Observed MW

17 kDa

Calculated MW

15 kDa

Category

Primary antibody

Applications

WB, IP, IF/ICC, IHC-P, DB, ChIP, ChIP-
seq, CUT&Tag, ELISA

Cross-Reactivity

Human, Mouse, Rat, Other (Wide Range
Predicted)

Clone/No. number

ARC55111

Background

Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. This gene is intronless and encodes a replication-dependent histone that is a member of the histone H3 family. Transcripts from this gene lack polyA tails; instead, they contain a palindromic termination element. This gene is located separately from the other H3 genes that are in the histone gene cluster on chromosome 6p22-p21.3.

Recommended Dilutions

WB	1:5000 - 1:20000
IP	0.5μg-4μg antibody for 200μg-400μg extracts of whole cells
IF/ICC	1:50 - 1:200
DB	1:2000 - 1:10000
IHC-P	1:1000 - 1:5000
ChIP	5μg antibody for 5μg-10μg of Chromatin
ChIP-seq	1:50 - 1:200
CUT&Tag	10 ⁵ cells /1 μg
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID

8290/8350

Swiss Prot

Q16695/P68431

Immunogen

Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms

H3.4; H3/g; H3FT; H3t; HIST3H3; Histone H3; HIST1H3A; Acetyl-Histone H3-K56

Product Information

Source	Isotype	Purification
Rabbit	IgG	Affinity purification

Storage

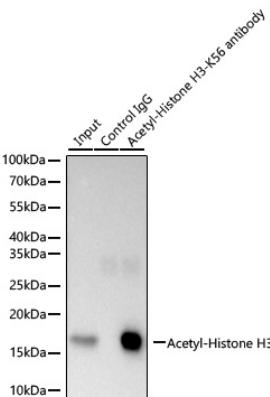
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

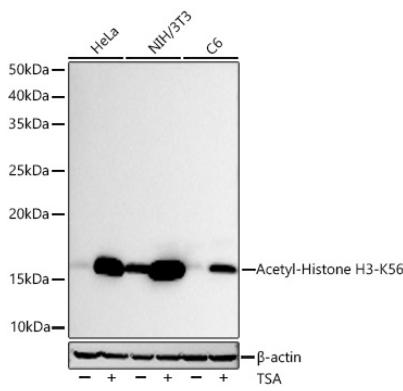
Contact

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Validation Data



Immunoprecipitation of Acetyl-Histone H3-K56 from 300 μ g extracts of HeLa cells treated with TSA was performed using 2 μ g of Acetyl-Histone H3-K56 Rabbit mAb (A22565). Rabbit IgG isotype control (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1X reducing Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using Acetyl-Histone H3-K56 Rabbit mAb (A22565) at a dilution of 1:5000.



Western blot analysis of various lysates using Acetyl-Histone H3-K56 Rabbit mAb (A22565) at 1:10000 dilution incubated overnight at 4°C. HeLa cells, NIH/3T3 cells and C6 cells were treated by TSA (1 μ M) at 37°C for 18 hours.

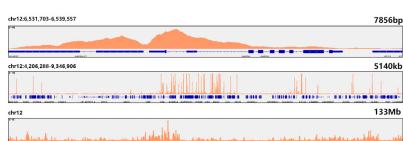
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 30 μ g per lane.

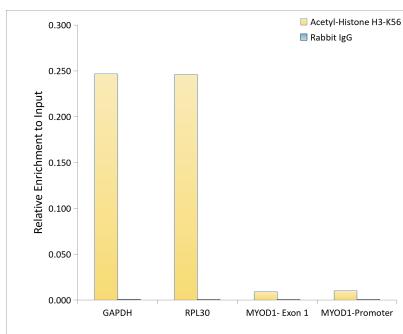
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 60s.

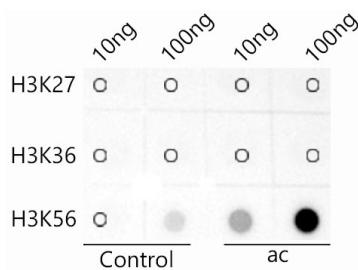


Chromatin immunoprecipitations were performed with cross-linked chromatin from HeLa cells and Acetyl-Histone H3-K56 mAb (A22565). The ChIP sequencing results indicate the enrichment pattern of Acetyl-Histone H3-K56 in selected genomic region and representative gene loci (GAPDH), as shown in figure.

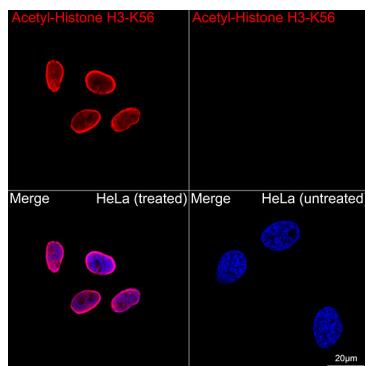


Chromatin immunoprecipitation analysis of extracts of NIH/3T3 cells, using Acetyl-Histone H3-K56 antibody (A22565) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

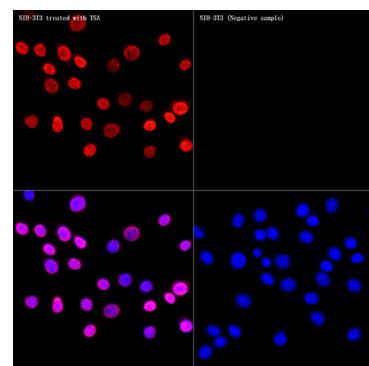
Validation Data



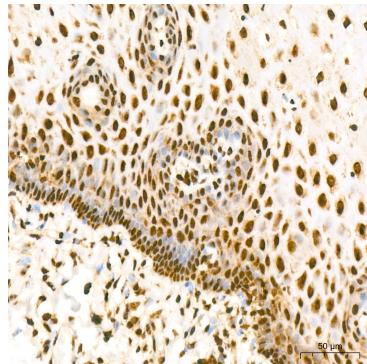
Dot-blot analysis of all sorts of peptides using Acetyl-Histone H3-K56 antibody (A22565) at 1:10000 dilution.



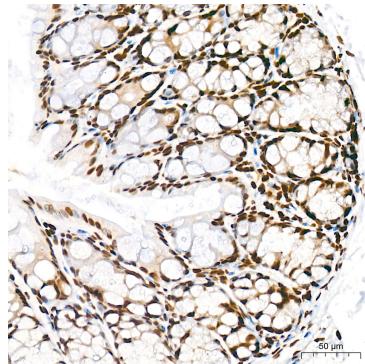
Confocal imaging of HeLa cells (treated with TSA) and HeLa cells (untreated) using Acetyl-Histone H3-K56 Rabbit mAb (A22565, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.



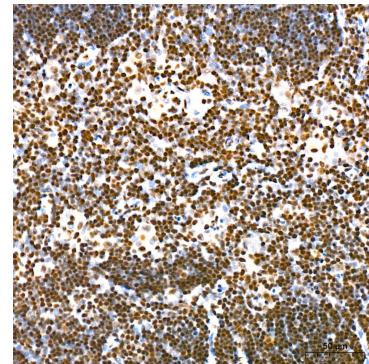
Immunofluorescence analysis of NIH-3T3 treated with TSA and NIH-3T3 cells using Acetyl-Histone H3-K56 Rabbit mAb (A22565) at dilution of 1:50 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



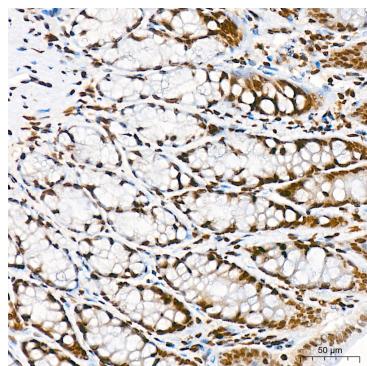
Immunohistochemistry analysis of paraffin-embedded Human esophagus tissue using Acetyl-Histone H3-K56 Rabbit mAb (A22565) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



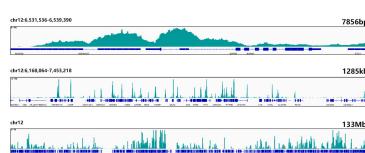
Immunohistochemistry analysis of paraffin-embedded Mouse colon tissue using Acetyl-Histone H3-K56 Rabbit mAb (A22565) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse spleen tissue using Acetyl-Histone H3-K56 Rabbit mAb (A22565) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat colon tissue using Acetyl-Histone H3-K56 Rabbit mAb (A22565) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina(RK20265) from 10^5 K562 cells with 1μg Acetyl-Histone H3-K56 (A22565) , along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of Acetyl-Histone H3-K56 in representative gene loci (GAPDH), as shown in figure.