Acetyl-Histone H3-K27 Rabbit mAb

Catalog No.: A22264

Recombinant | 14 Publications

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Basic Information

Observed MW
17 kDa

Calculated MW
15 kDa

Category
Monoclonal Antibodies

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

Cross Reactivity
Human, Mouse, Rat, Arabidopsis thaliana, Other (Wide Range Predicted)

Clone No.
ARC54943

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	1:10000 - 1:40000
IF/ICC	1:50 - 1:200
IHC-P	1:50 - 1:200
DB	1:2000 - 1:20000

ChIP
5μg antibody for 5μg-10μg of Chromatin

ChIP-seq	5 μg antibody for 10 μg of Chromatin
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
H3t; H3.4; H3/g; H3FT; H3C16; HIST3H3; Acetyl-Histone H3-K27

Contact

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Product Information

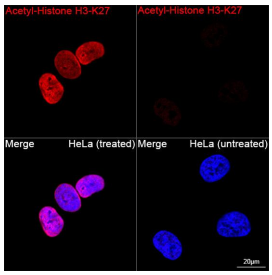
Source
Rabbit

Isotype
IgG

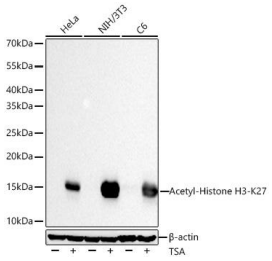
Purity
Affinity purification

Storage
Store at -20℃

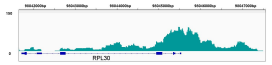
Validation Data



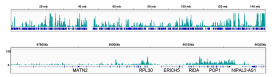
Confocal imaging of HeLa TSA and HeLa cells using Acetyl-Histone H3-K27 Rabbit mAb (A22264,dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007,dilution 1:500)(Red).DAPI was used for nuclear staining (Blue). Objective: 100x.



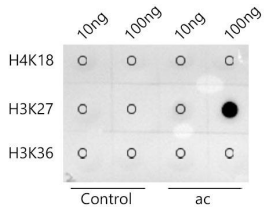
Western blot analysis of various lysates using Acetyl-Histone H3-K27 Rabbit mAb (A22264) at 1:10000 dilution incubated overnight at 4℃. HeLa cells ,NIH/3T3 cells and C6 cells were treated with TSA (1 μM) at 37℃ for 18 hours.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates/proteins: 30 μg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 20s.



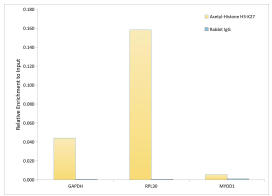
CUT&Tag was performed using the CUT&Tag Assay Kit（pAG-Tn5）V3 for Illumina (RK21513) from 10^5 HeLa cells treated with TSA(18h,1uM) with 1 μg of Acetyl-Histone H3-K27 Rabbit mAb (A22264), followed by incubation with Goat Anti-Rabbit IgG(H+L)(AS070). The results denote the enrichment pattern of Acetyl-Histone H3-K27 around RPL30 gene.



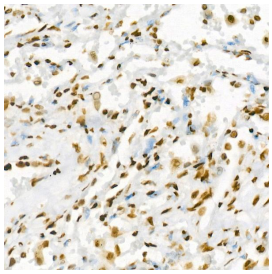
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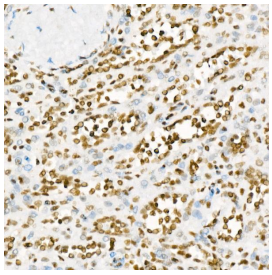
Dot-blot analysis of all sorts of peptides using Acetyl-Histone H3-K27 Rabbit mAb (A22264) at 1:2000 dilution.



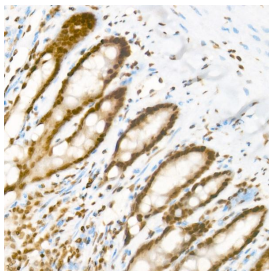
Chromatin immunoprecipitation analysis of extracts of HeLa cells, using Acetyl-Histone H3-K27 antibody (A22264) and rabbit IgG.The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.



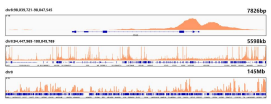
Immunohistochemistry analysis of paraffin-embedded Human lung using Acetyl-Histone H3-K27 Rabbit mAb (A22264) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



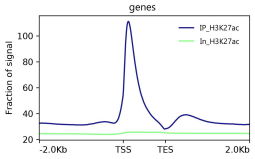
Immunohistochemistry analysis of paraffin-embedded Human spleen using Acetyl-Histone H3-K27 Rabbit mAb (A22264) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat intestine using Acetyl-Histone H3-K27 Rabbit mAb (A22264) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



Chromatin immunoprecipitations were performed with cross-linked chromatin from HeLa cells and Acetyl-Histone H3-K27 Rabbit mAb (A22264). The ChIP sequencing results indicate the enrichment pattern of Acetyl-Histone H3-K27 in selected genomic region and representative gene loci (RPL30), as shown in figure.



Distribution patterns (fraction of signal) of average ChIP sequencing peaks in gene bodies and flanking regions, spanning from −2 kb upstream of the transcription start site (TSS) to +2 kb downstream of the transcription end site (TES) of corresponding genes in the Arabidopsis thaliana genome, are shown for the specific antibody immunoprecipitation (IP_H3K27ac) and the Input control (In_H3K27ac) samples using the Acetyl-Histone H3-K27 rabbit mAb (A22264).