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Acetyl-Histone H3-K27 Rabbit mAb

Catalog No.: A22077 Recombinant

Basic Information

Observed MW

17kDa

Calculated MW

15kDa

Category

SMab Recombinant Monoclonal Antibody

Applications

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

Cross-Reactivity

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

CloneNo number

ARC53671

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.

Immunogen Information

Gene ID	Swiss Prot
8290/8350	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

Recommended Dilutions

WB 1:5000 - 1:20000

IF 1:100 - 1:500

IHC-P 1:150 - 1:600

DB 1:2000 - 1:20000

ChIP 5µq antibody for

5μg-10μg of Chromatin

ChIP-seq 1:50 - 1:200

CUT&Tag 10⁵ cells /1 μg

ELISA Recommended starting

concentration is 1 µg/mL. Please optimize the concentration based on your specific

assay requirements.

Product Information

SourceIsotypePurificationRabbitIgGAffinity purification

Storage

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

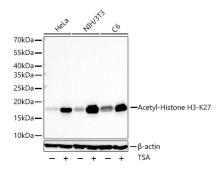
Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

Contact



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Validation Data



Western blot analysis of various lysates using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at 1:5000 dilution incubated overnight at 4°C. HeLa, C2C12 and C6 cells were treated with 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.

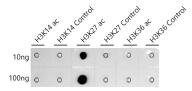
Lysates/proteins: 30 µg per lane.

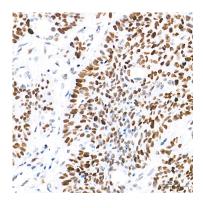
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 45s.





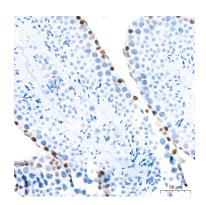


CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina(RK20265) from 10⁵ K562 cells with 1 µg Acetyl-Histone H3-K27 Rabbit mAb (A22077), along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of Acetyl-Histone H3-K27 in representative gene loci (RPL30), as shown in figure.

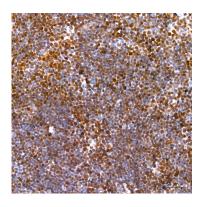
Dot-blot analysis of all sorts of peptides using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at 1:20000 dilution. Immunohistochemistry analysis of paraffin-embedded Human lung cancer tissue using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Human placenta tissue using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

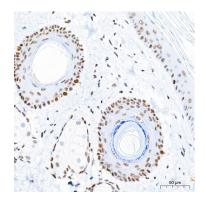


Immunohistochemistry analysis of paraffin-embedded Mouse testis tissue using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

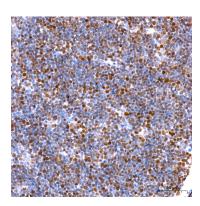


Immunohistochemistry analysis of paraffin-embedded Mouse thymus tissue using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

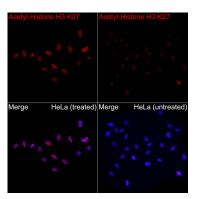
Validation Data



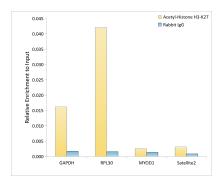
Immunohistochemistry analysis of paraffin-embedded Rat skin tissue using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



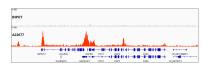
Immunohistochemistry analysis of paraffin-embedded Rat thymus tissue using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunofluorescence analysis of HeLa treated with TSA and HeLa cells using Acetyl-Histone H3-K27 Rabbit mAb (A22077) at dilution of 1:200 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Chromatin immunoprecipitation analysis of extracts of HeLa cells, using Acetyl-Histone H3-K27 Rabbit mAb antibody (A22077) 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.



Chromatin immunoprecipitations were performed with cross-linked chromatin from HeLa cells and Acetyl-Histone H3-K27 Rabbit mAb (A22077). The ChIP sequencing results indicate the enrichment pattern of Acetyl-Histone H3-K27 in selected genomic region and representative gene loci (GAPDH), as shown in figure.