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DiMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22143 Recombinant 4 Publications

Basic Information

Observed MW
17 kDa

Calculated MW
15 kDa

Category
Primary antibody

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

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

CloneNo number
ARC55489

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	1:2000 - 1:10000
DB	1:2000 - 1:6000
IHC-P	1:3000 - 1:12000
IF/ICC	1:200 - 1:1000
IP	0.5 μg - 5 μg antibody for 400 μg - 600 μg extracts of whole cells
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.
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

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; DiMethyl-Histone H3-K4

Product Information

Source
Rabbit

Isotype
IgG

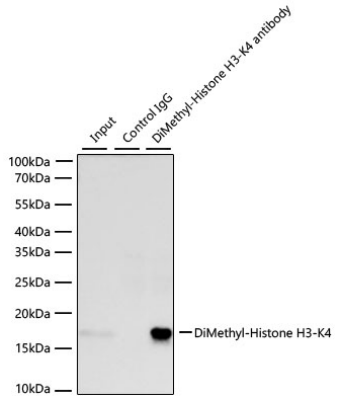
Purification
Affinity purification

Storage
Store at -20℃

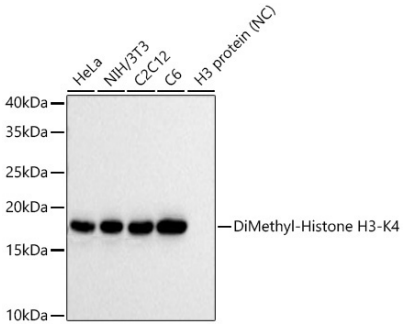
Contact

☎	400-999-6126
✉	cn.market@abclonal.com.cn
🌐	www.abclonal.com.cn

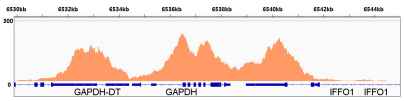
Validation Data



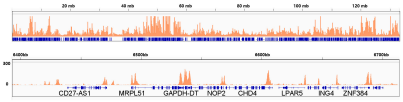
Immunoprecipitation of DiMethyl-Histone H3-K4 from 600 µg extracts of HeLa cells was performed using 3 µg of DiMethyl-Histone H3-K4 Rabbit mAb (A22143). Rabbit Control IgG (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1X Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:10000.



Western blot analysis of various lysates using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at 1:3000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Negative control (NC): H3 protein
Exposure time: 30 s.



Chromatin immunoprecipitation was performed with 10 µg of cross-linked chromatin from HeLa using 5 µg of DiMethyl-Histone H3-K4 Rabbit mAb（A22143）. DNA libraries were prepared using Scale ssDNA-seq Lib Prep Kit for Illumina V2 (RK20228). The ChIP sequencing results indicate the enrichment pattern of DiMethyl-Histone H3-K4 in the representative genomic region surrounding GAPDH gene.



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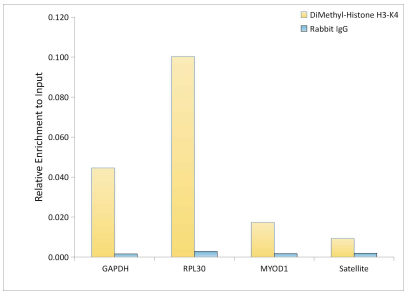
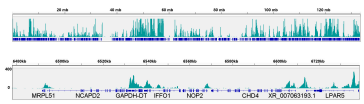
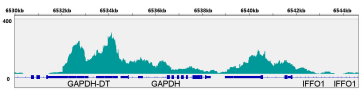


Chromatin immunoprecipitation analysis of extracts of HeLa cells, using DiMethyl-Histone H3-K4 Rabbit mAb (A22295) and rabbit IgG.The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

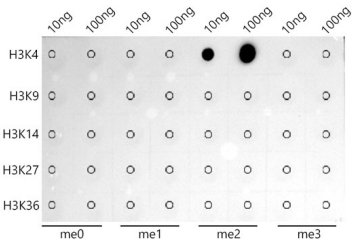
Validation Data



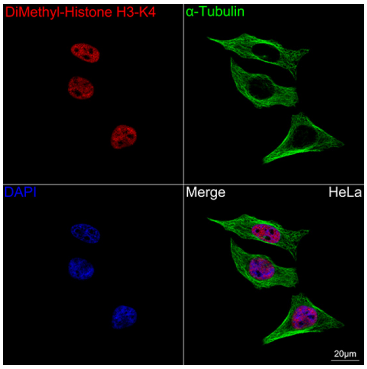
CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina (RK20265) from 10^5 HeLa with 1 µg of DiMethyl-Histone H3-K4 Rabbit mAb (A22143), followed by incubation with Goat Anti-Rabbit IgG(H+L)(AS070). The CUT&Tag results denote the enrichment pattern of DiMethyl-Histone H3-K4 across chromosome 12 (upper panel) and the genomic region encompassing GAPDH, a representative gene enriched in DiMethyl-Histone H3-K4 (lower panel).



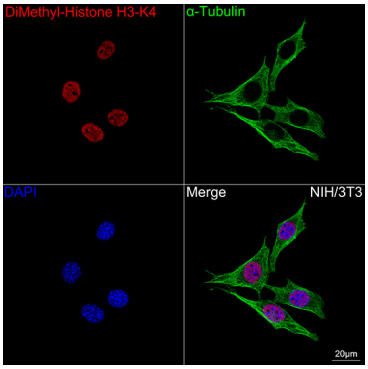
CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina (RK20265) from 10^5 HeLa cells with 1 µg of DiMethyl-Histone H3-K4 Rabbit mAb (A22143), followed by incubation with Goat Anti-Rabbit IgG(H+L)(AS070). The CUT&Tag results denote the enrichment pattern of DiMethyl-Histone H3-K4 around GAPDH gene.



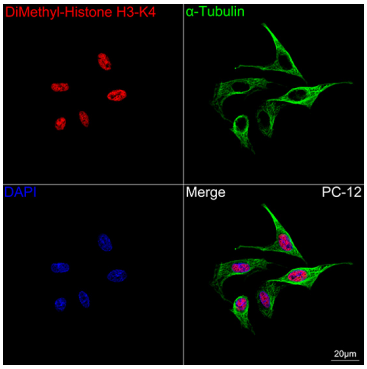
Dot-blot analysis of all sorts of peptides using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at 1:5000 dilution.



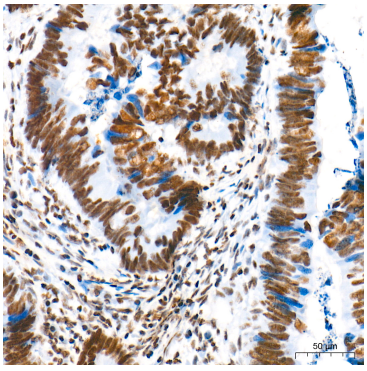
Confocal imaging of HeLa cells using DiMethyl-Histone H3-K4 Rabbit pAb (A22143, dilution 1:500) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

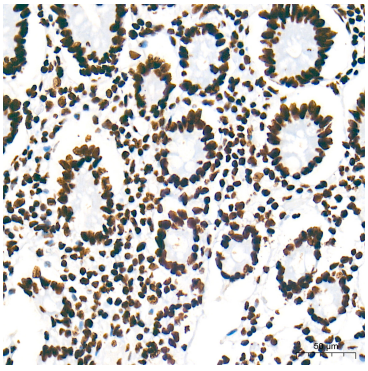


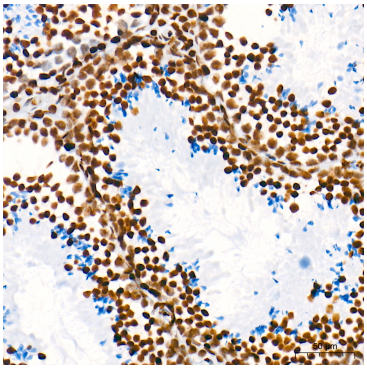
Confocal imaging of NIH/3T3 cells using DiMethyl-Histone H3-K4 Rabbit pAb (A22143, dilution 1:500) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.



Confocal imaging of PC-12 cells using DiMethyl-Histone H3-K4 Rabbit pAb (A22143, dilution 1:500) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.





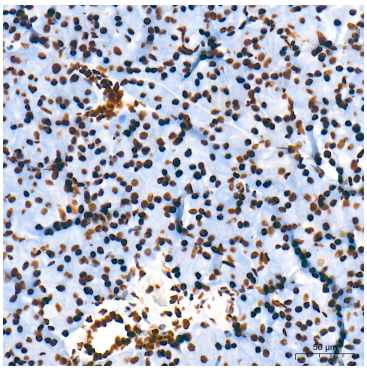


Validation Data

Immunohistochemistry analysis of paraffin-embedded Human colon carcinoma tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:5000 (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 colon tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:5000 (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 DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:5000 (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 pancreas tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.