

A22143

Leader in Biomolecular Solutions for Life Science



DiMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22143

Recombinant

1 Publications

Basic Information

Observed MW

17kDa

Calculated MW

16kDa

Category

SMab Recombinant Monoclonal Antibody

Applications

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

Cross-Reactivity

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

CloneNo number

ARC55489

Recommended Dilutions

WB	1:2000 - 1:10000
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IP	0.5µg-5µg antibody for 400µg-600µg extracts of whole cells
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IF/ICC	1:50 - 1:200
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IHC-P	1:1000 - 1:5000
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DB	1:2000 - 1:6000
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ChIP	5µg antibody for 5µg-10µg of Chromatin
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ChIP-seq	1:50 - 1:200
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CUT&Tag	10 ⁵ cells /1 µg
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ELISA	Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific
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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

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°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.

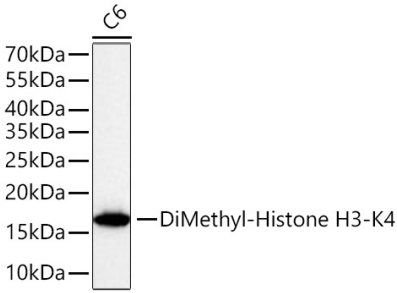
assay requirements.

Contact

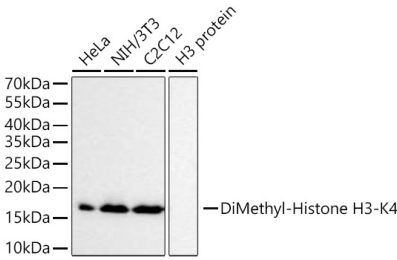


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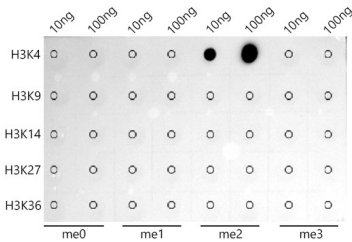
Validation Data



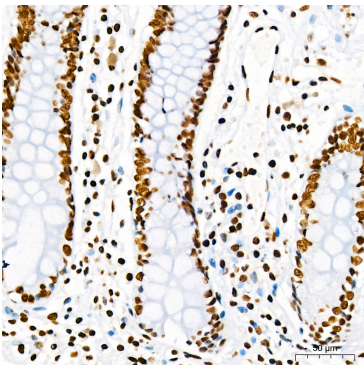
Western blot analysis of lysates from C6 cells using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at 1:10000 dilution incubated overnight at 4°C.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 10s.



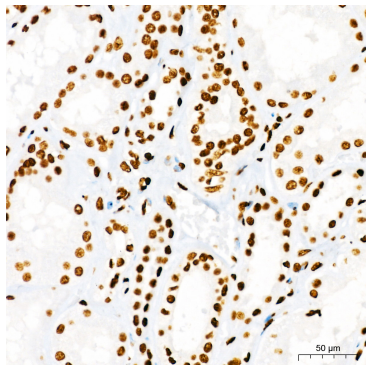
Western blot analysis of various lysates using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at 1:10000 dilution incubated overnight at 4°C.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Negative control (NC): H3 protein
Exposure time: 20s.



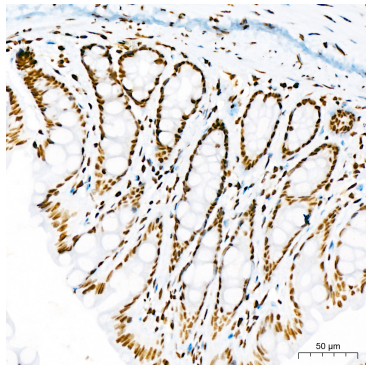
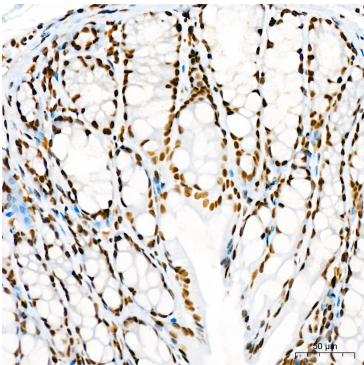
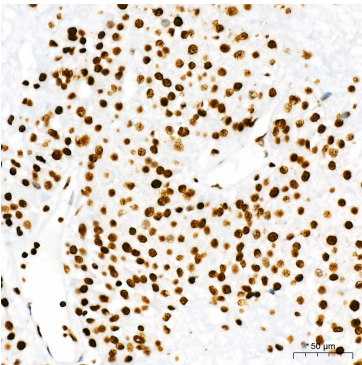
Dot-blot analysis of all sorts of peptides using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at 1:5000 dilution.



Immunohistochemistry analysis of paraffin-embedded Human colon tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:1500 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IHC staining.

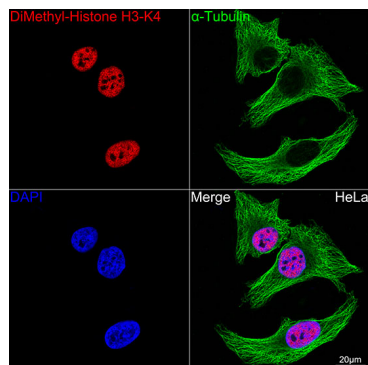


Immunohistochemistry analysis of paraffin-embedded Human kidney tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:1500 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IHC staining.



Validation Data

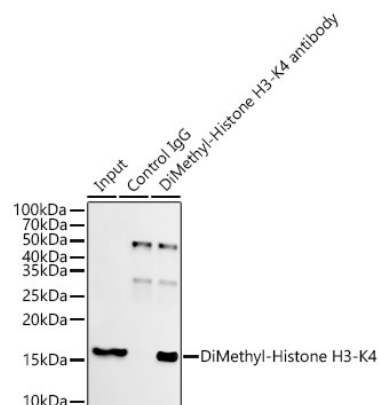
Immunohistochemistry analysis of paraffin-embedded Human liver cancer tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:1500 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IHC staining.



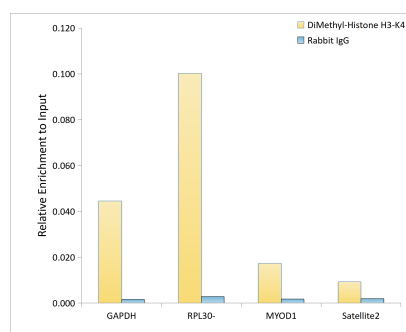
Confocal imaging of HeLa cells using DiMethyl-Histone H3-K4 Rabbit mAb (A22143, dilution 1:200) (Red). The cells were counterstained with α -Tubulin Mouse mAb (AC012, dilution 1:400) (Green). DAPI was used for nuclear staining (blue). Objective: 100x.

Immunohistochemistry analysis of paraffin-embedded Mouse colon tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:1500 (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 colon tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:1500 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IHC staining.

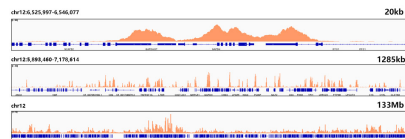


Immunoprecipitation analysis of 600 μ g extracts of 293F cells using 5 μ g DiMethyl-Histone H3-K4 Rabbit mAb (A22295). Western blot was performed from the immunoprecipitate using DiMethyl-Histone H3-K4 antibody (A22143) at a dilution of 1:2000.

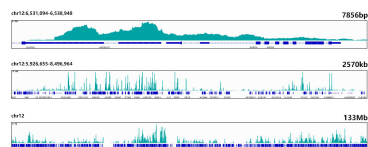


Chromatin immunoprecipitation analysis of extracts of HeLa cells, using DiMethyl-Histone H3-K4 Rabbit mAb (A22295) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

Validation Data



Chromatin immunoprecipitations were performed with cross-linked chromatin from HeLa cells and DiMethyl-Histone H3-K4 Rabbit mAb (A22143). The ChIP sequencing results indicate the enrichment pattern of DiMethyl-Histone H3-K4 in selected genomic region and representative gene loci (GAPDH), as shown in figure.



CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina(RK20265) from 10⁵ K562 cells with 1 µg DiMethyl-Histone H3-K4 Rabbit mAb (A22295), along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of DiMethyl-Histone H3-K4 in representative gene loci (GAPDH), as shown in figure.