

# DiMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22143 **Recombinant** **1 Publications**

## Basic Information

### Observed MW

17kDa

### Calculated MW

16kDa

### 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

## Recommended Dilutions

<b>WB</b>	1:1000 - 1:5000
<b>DB</b>	1:2000 - 1:6000
<b>IHC-P</b>	1:1000 - 1:5000
<b>IF/ICC</b>	1:50 - 1:200
<b>IP</b>	0.5µg-4µg antibody for 200µg-400µg extracts of whole cells
<b>ELISA</b>	Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.
<b>ChIP</b>	5µg antibody for 5µg-10µg of Chromatin
<b>ChIP-seq</b>	1:50 - 1:200
<b>CUT&amp;Tag</b>	10 <sup>5</sup> cells /1 µg

## 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

A synthetic dimethylated peptide around K4 of human Histone H3 (NP\_003520.1).

### 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 with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3.

## Contact

---

 | 400-999-6126

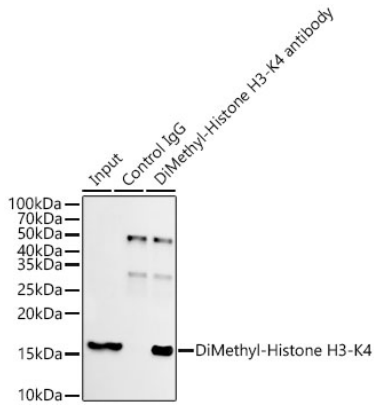
 | [cn.market@abclonal.com.cn](mailto:cn.market@abclonal.com.cn)

 | [www.abclonal.com.cn](http://www.abclonal.com.cn)

---

## Validation Data

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



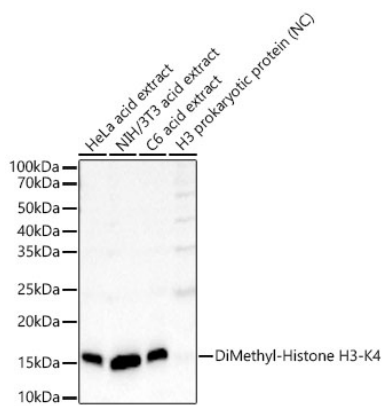
Western blot analysis of various lysates, using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at 1:3000 dilution.

Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane.

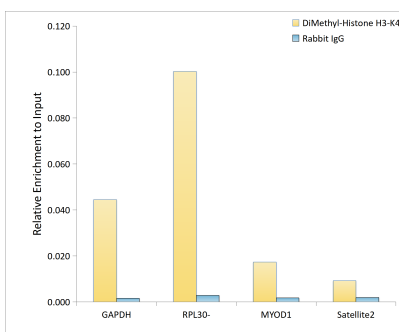
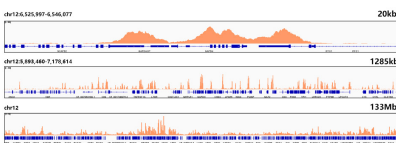
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 10s.

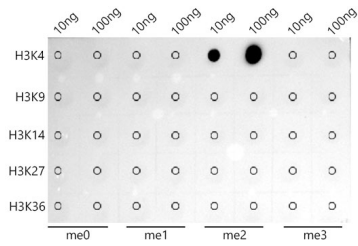


Chromatin immunoprecipitations were performed with cross-linked chromatin from HeLa cells and DiMethyl-Histone H3-K4 Rabbit mAb (A22143). The ChIP sequencing results indicate the enrichment pattern of DiMethyl-Histone H3-K4 in selected genomic region and representative gene loci (GAPDH), as shown in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

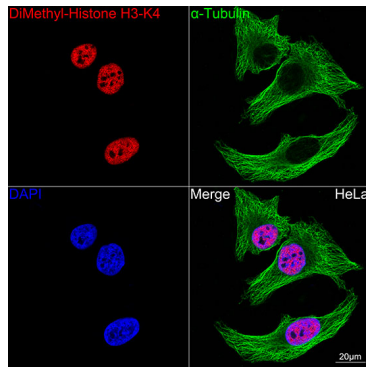


Chromatin immunoprecipitation analysis of extracts of HeLa cells, using DiMethyl-Histone H3-K4 antibody (A22143) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

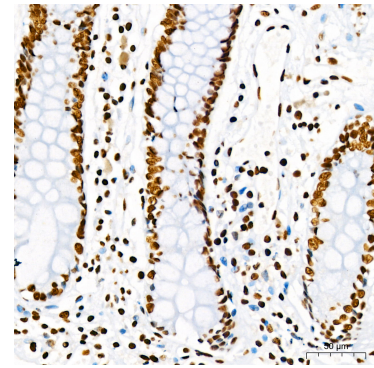
## Validation Data



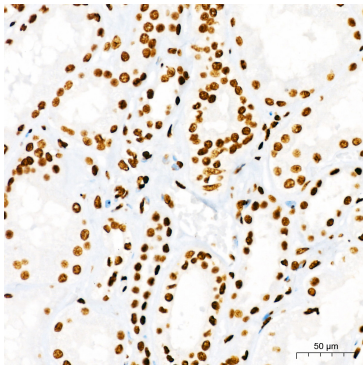
Dot-blot analysis of all sorts of peptides using DiMethyl-Histone H3-K4 antibody (A22143) at 1:5000 dilution.



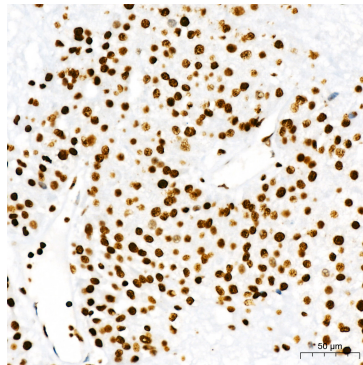
Confocal imaging of HeLa cells using DiMethyl-Histone H3-K4 Rabbit mAb (A22143, dilution 1:200) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) (Green). DAPI was used for nuclear staining (blue). Objective: 100x.



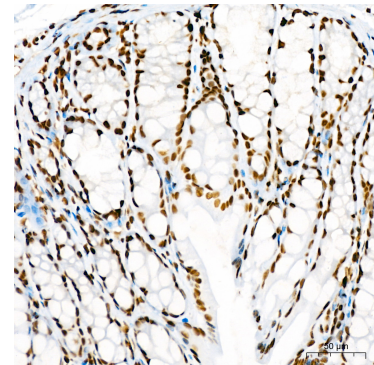
Immunohistochemistry analysis of paraffin-embedded Human colon tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:3000 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



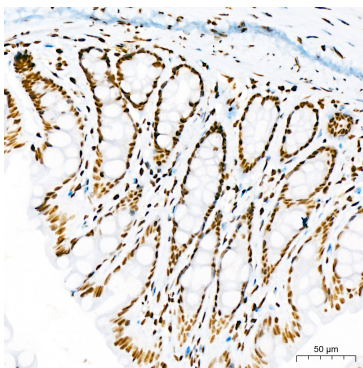
Immunohistochemistry analysis of paraffin-embedded Human kidney tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:3000 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



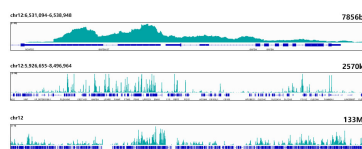
Immunohistochemistry analysis of paraffin-embedded Human liver cancer tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:3000 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse colon tissue using DiMethyl-Histone H3-K4 Rabbit mAb (A22143) at a dilution of 1:3000 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (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 1:3000 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (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 1  $\mu$ g 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.