

# TriMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22146 **Recombinant** **3 Publications**

## Basic Information

### Observed MW

17kDa

### Calculated MW

15kDa

### Category

Primary antibody

### Applications

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

### Cross-Reactivity

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

### CloneNo number

ARC55095

## Recommended Dilutions

**WB** 1:1000- 1:10000

**DB** 1:10000 - 1:60000

**IHC-P** 1:50 - 1:200

**IF/ICC** 1:50 - 1:200

**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** 1:50 - 1:200

**CUT&Tag** 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 trimethylated peptide around K4 of human Histone H3 (NP\_003520.1).

### Synonyms

H3.4; H3/g; H3FT; H3t; HIST3H3; Histone H3; HIST1H3A; TriMethyl-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

---

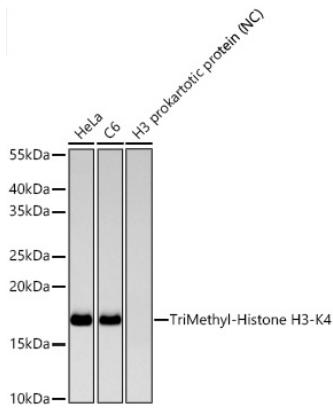
 | 400-999-6126

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

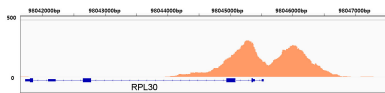
 | [www.abclonal.com.cn](http://www.abclonal.com.cn)

---

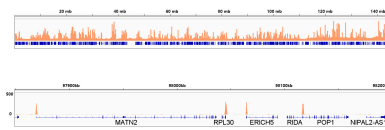
## Validation Data



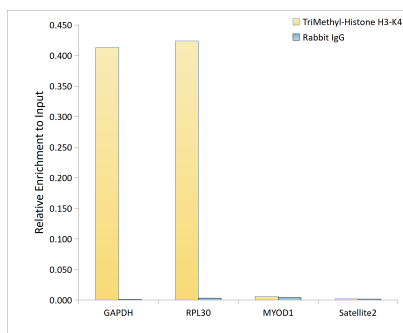
Western blot analysis of various lysates using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at 1:5000 dilution incubated overnight at 4°C.  
 Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
 Lysates/proteins: 25 µg per lane.  
 Blocking buffer: 3% nonfat dry milk in TBST.  
 Detection: ECL Basic Kit (RM00020).  
 Negative control (NC): H3 prokaryotic protein  
 Exposure time: 45s.



Chromatin immunoprecipitation was performed with 10 µg of cross-linked chromatin from 293T using 5 µg of TriMethyl-Histone H3-K4 Rabbit mAb (A22146). DNA libraries were prepared using Scale ssDNA-seq Lib Prep Kit for Illumina V2 (RK20228). The ChIP sequencing results indicate the enrichment pattern of TriMethyl-Histone H3-K4 in the representative genomic region surrounding RPL30 gene.

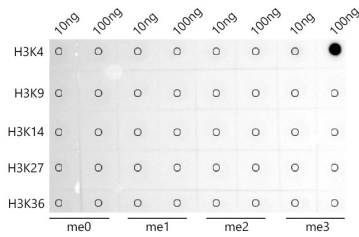


Chromatin immunoprecipitation was performed with 10 µg of cross-linked chromatin from 293T using 5 µg of TriMethyl-Histone H3-K4 Rabbit mAb (A22146). DNA libraries were prepared using Scale ssDNA-seq Lib Prep Kit for Illumina V2 (RK20228). The ChIP sequencing results indicate the enrichment pattern of TriMethyl-Histone H3-K4 across chromosome 8 (upper panel) and the genomic region encompassing RPL30, a representative gene enriched in TriMethyl-Histone H3-K4 (lower panel).

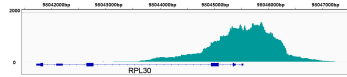


Chromatin immunoprecipitation analysis of extracts of HeLa cells, using TriMethyl-Histone H3-K4 antibody (A22146) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

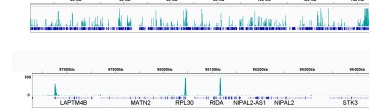
## Validation Data



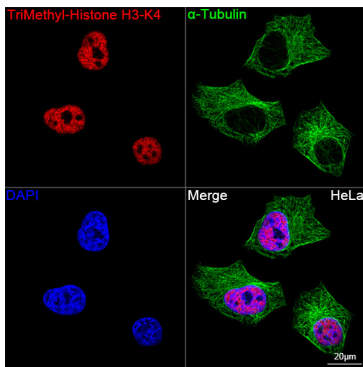
Dot-blot analysis of all sorts of peptides using TriMethyl-Histone H3-K4 antibody (A22146) at 1:50000 dilution.



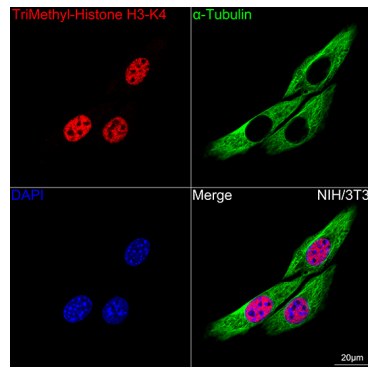
CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina (RK20265) from  $10^5$  K-562 cells with 1  $\mu$ g of TriMethyl-Histone H3-K4 Rabbit mAb (A22146), followed by incubation with Goat Anti-Rabbit IgG(H+L)(AS070). The CUT&Tag results denote the enrichment pattern of TriMethyl-Histone H3-K4 around RPL30 gene.



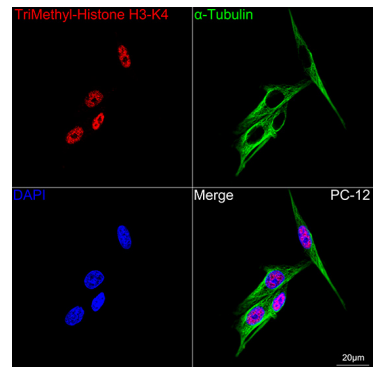
CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina (RK20265) from  $10^5$  K-562 cells with 1  $\mu$ g of TriMethyl-Histone H3-K4 Rabbit mAb (A22146), followed by incubation with Goat Anti-Rabbit IgG (H+L)(AS070). The CUT&Tag results denote the enrichment pattern of TriMethyl-Histone H3-K4 across chromosome 8 (upper panel) and the genomic region encompassing RPL30, a representative gene enriched in TriMethyl-Histone H3-K4 (lower panel).



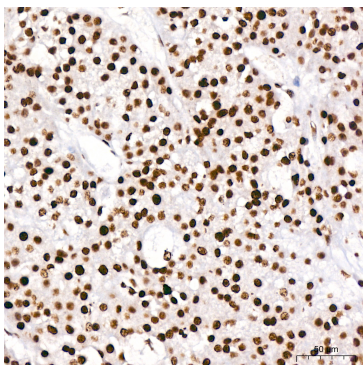
Confocal imaging of HeLa cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation 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.



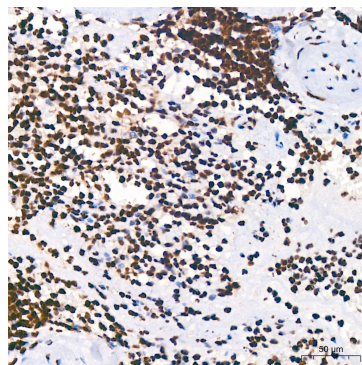
Confocal imaging of NIH/3T3 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation 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.



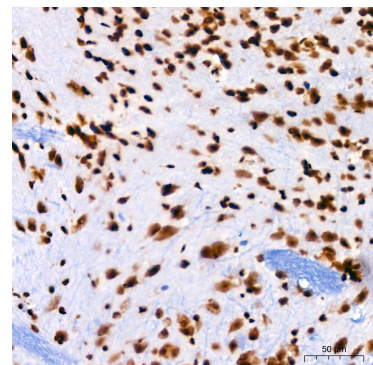
Confocal imaging of PC-12 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation 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.



Immunohistochemistry analysis of paraffin-



Immunohistochemistry analysis of paraffin-



Immunohistochemistry analysis of paraffin-

## Validation Data

---

embedded Human liver cancer using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.

embedded Human spleen using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.

embedded Mouse brain using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.