

# TriMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22146 **Recombinant** **19 Publications**

## Basic Information

### Observed MW

17 kDa

### Calculated MW

15 kDa

### Category

Primary antibody

### Applications

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

### Cross-Reactivity

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

### CloneNo number

ARC55095

## Recommended Dilutions

<b>WB</b>	1:1000- 1:10000
<b>DB</b>	1:10000 - 1:60000
<b>IP</b>	0.5µg-4µg antibody for 400µg-600µg extracts of whole cells
<b>IHC-P</b>	1:2000 - 1:8000
<b>IF/ICC</b>	1:50 - 1:200
<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

Synthetic peptide. This information is considered to be commercially sensitive.

### 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 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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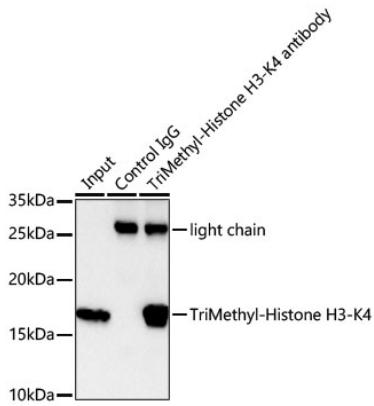
 | 400-999-6126

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

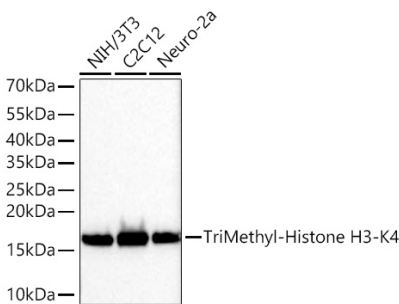
 | [www.abclonal.com.cn](http://www.abclonal.com.cn)

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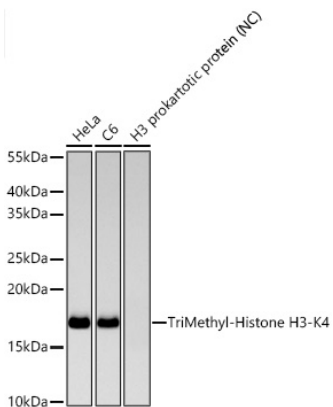
## Validation Data



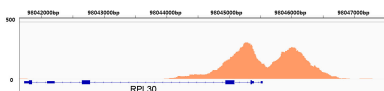
Immunoprecipitation of TriMethyl-Histone H3-K4 from 600 µg extracts of HeLa cells was performed using 1 µg of TriMethyl-Histone H3-K4 Rabbit mAb (A22146). Rabbit IgG isotype control (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1x reducing Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:2000.



Western blot analysis of various lysates using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at 1:6000 dilution incubated at room temperature for 1.5 hours.  
 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: 30s.

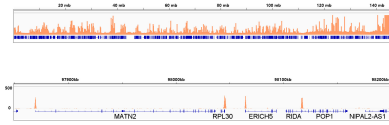


Western blot analysis of various lysates using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at 1:5000 dilution incubated overnight at 4°C.  
 Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
 Lysates/proteins: 25 µg per lane.  
 Blocking buffer: 3% nonfat dry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

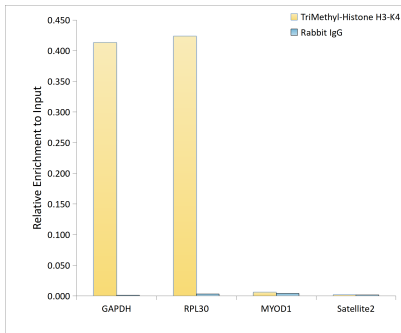


Chromatin immunoprecipitation was performed with 10 µg of cross-linked chromatin from 293T using 5 µg of TriMethyl-Histone H3-K4 Rabbit mAb (A22146). DNA libraries were prepared using Scale ssDNA-seq Lib Prep Kit for Illumina V2 (RK20228). The ChIP sequencing results indicate the enrichment pattern of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

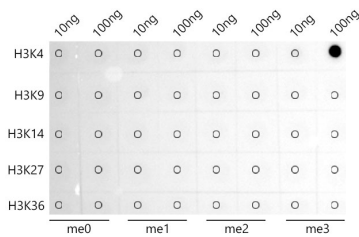
## Validation Data



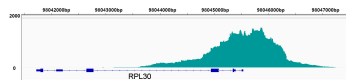
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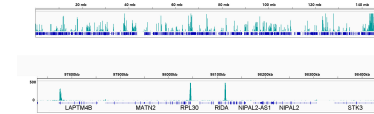
Chromatin immunoprecipitation analysis of extracts of HeLa cells, using TriMethyl-Histone H3-K4 antibody (A22146) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.



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

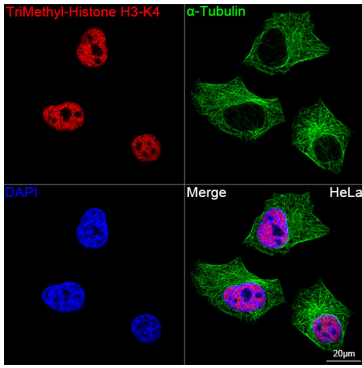


CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina (RK20265) from  $10^5$  K-562 cells with 1  $\mu$ g of TriMethyl-Histone H3-K4 Rabbit mAb (A22146), followed by incubation with Goat Anti-Rabbit IgG(H+L)(AS070). The CUT&Tag results denote the enrichment pattern of TriMethyl-Histone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

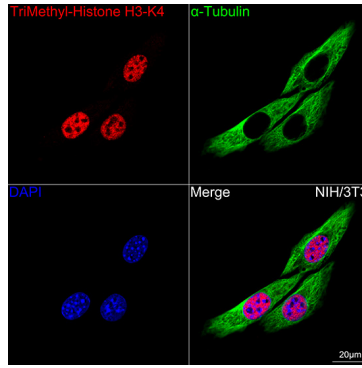


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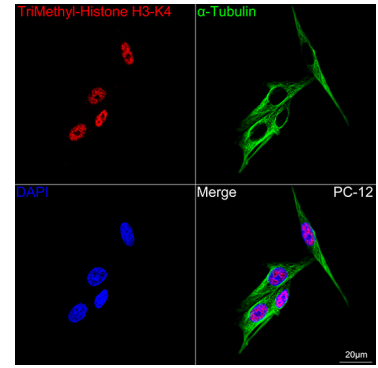
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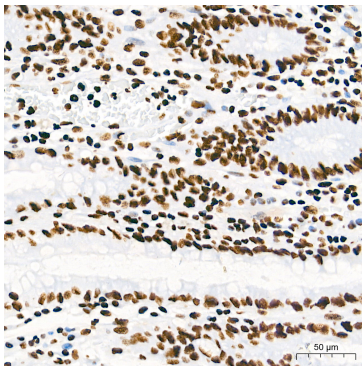
Confocal imaging of HeLa cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation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



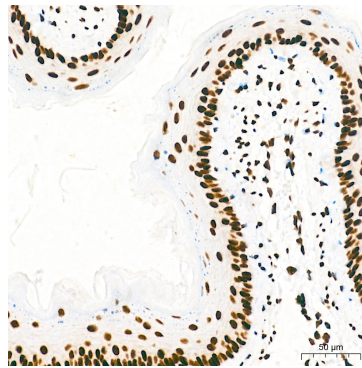
Confocal imaging of NIH/3T3 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation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



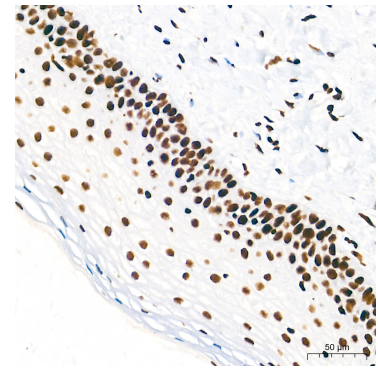
Confocal imaging of PC-12 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation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



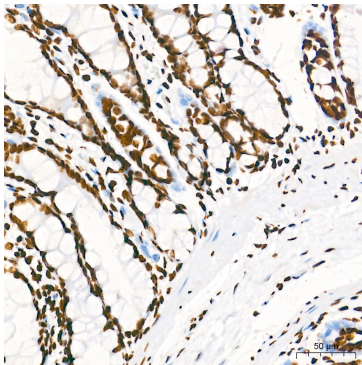
Immunohistochemistry analysis of paraffin-embedded Human colon tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



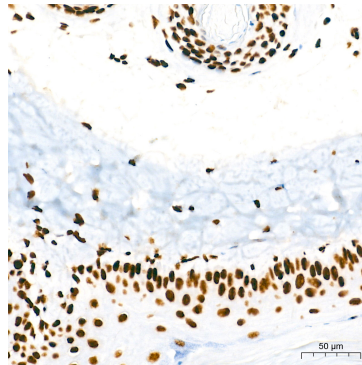
Immunohistochemistry analysis of paraffin-embedded Mouse esophagus tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Human cervix tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) 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 colon tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) 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 skin tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) 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.