

A22146

Leader in Biomolecular Solutions for Life Science



TriMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22146

Recombinant

10 Publications

Basic Information

Observed MW

17kDa

Calculated MW

15kDa

Category

SMab Recombinant Monoclonal
Antibody

Applications

WB,IHC-P,IF/ICC,ChIP,ChIP-
seq,ELISA,DB,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** 1:2000 - 1:8000**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** 10⁵ 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

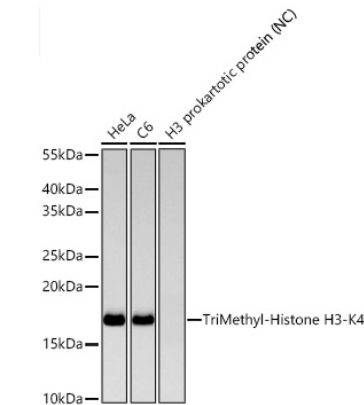
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.09% Sodium azide,0.05% BSA,50% glycerol,pH7.3.

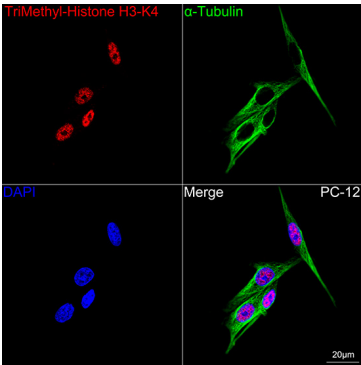
Contact

 www.abclonal.com

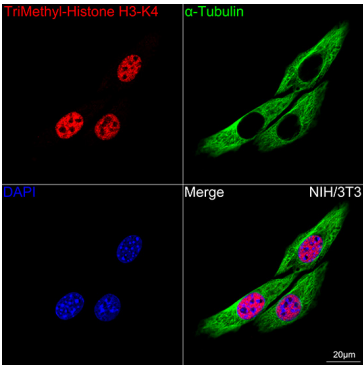
Validation Data



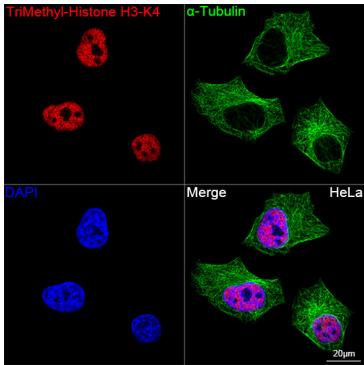
Western blot analysis of various lysates using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at 1:5000 dilution incubated overnight at 4°C.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in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



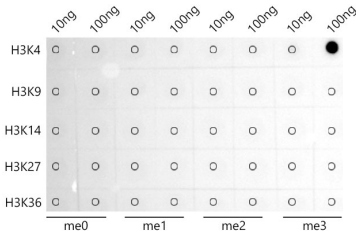
Confocal imaging of PC-12 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.



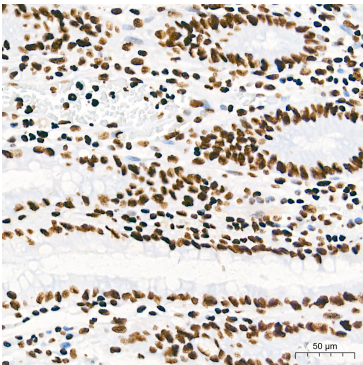
Confocal imaging of NIH/3T3 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation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



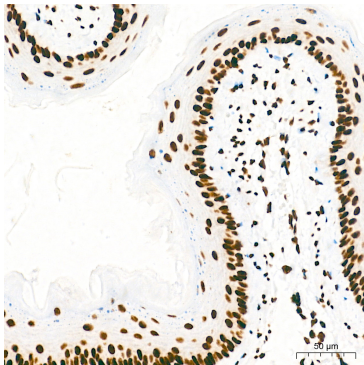
Confocal imaging of HeLa cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.



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

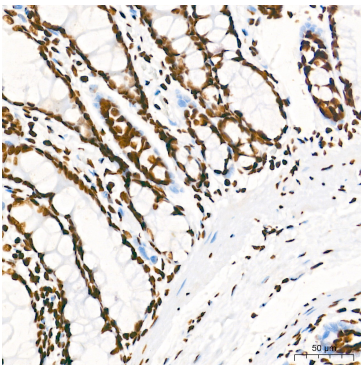


Immunohistochemistry analysis of paraffin-embedded Human colon tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:500.

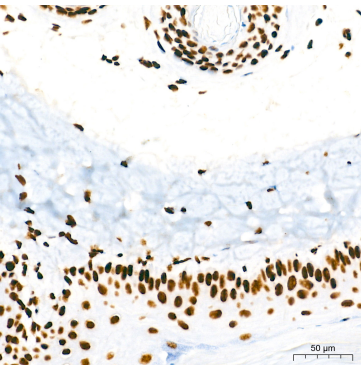


Immunohistochemistry analysis of paraffin-embedded Mouse esophagus tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:500.

1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

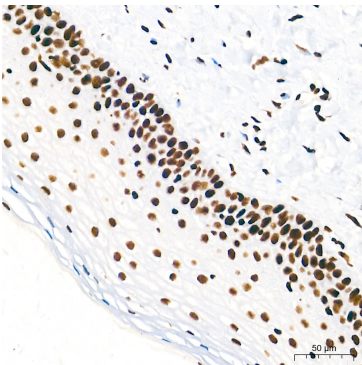


Immunohistochemistry analysis of paraffin-embedded Rat colon tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

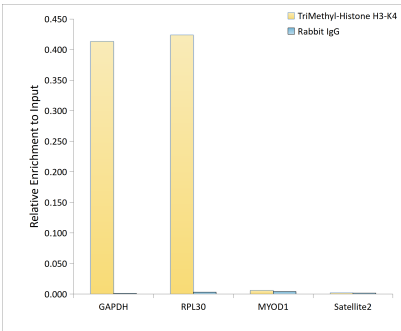


Immunohistochemistry analysis of paraffin-embedded Rat skin tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

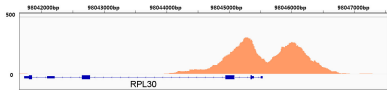
at a dilution of 1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



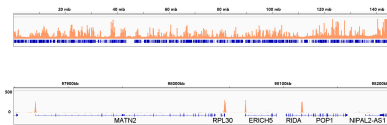
Immunohistochemistry analysis of paraffin-embedded Human cervix tissue using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at a dilution of 1:5000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



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.

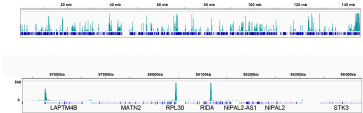
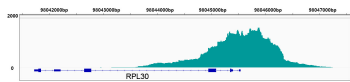


Chromatin immunoprecipitation was performed with 10 μg of cross-linked chromatin from 293T using 5 μg of TriMethyl-Histone H3-K4 Rabbit mAb (A22146). DNA libraries were prepared using Scale ssDNA-seq Lib Prep Kit for Illumina V2 (RK20228). The ChIP sequencing results indicate the enrichment pattern of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



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Validation Data



CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina (RK20265) from 10⁵ K-562 cells with 1 µg 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 10⁵ K-562 cells with 1 µg 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).