

TriMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22146

Recombinant

2 Publications

Basic Information

Observed MW

17kDa

Calculated MW

15kDa

Category

Primary antibody

Applications

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

Cross-Reactivity

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

CloneNo number

ARC55095

Recommended Dilutions

DB 1:10000 - 1:60000**WB** 1:10000- 1:60000**IHC-P** 1:50 - 1:200**IF/ICC** 1:50 - 1:200**ChIP** 5µg antibody for
5µg-10µg of Chromatin**CUT&Tag** 10⁵ cells /1 µg**ChIP-seq** 1:50 - 1:200

Contact

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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

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

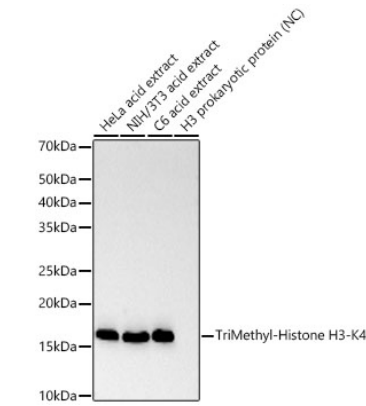
Affinity purification

Storage

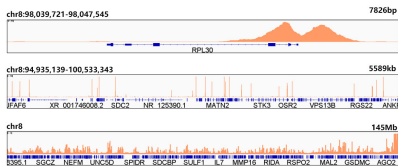
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3.

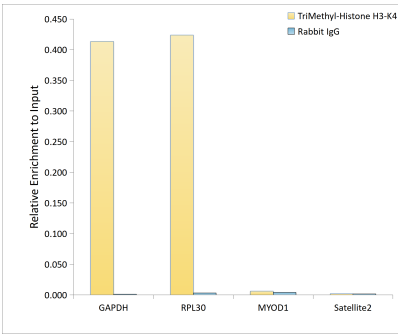
Validation Data



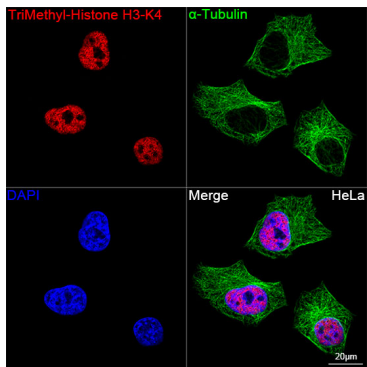
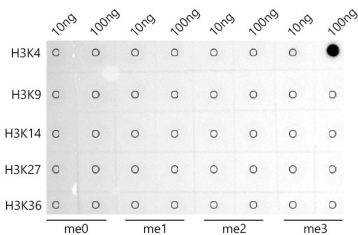
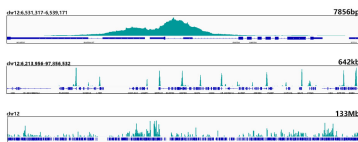
Western blot analysis of various lysates, using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at 1:50000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 30s.



Chromatin immunoprecipitations were performed with cross-linked chromatin from 293T cells and TriMethyl-Histone H3-K4 Rabbit mAb (A22146). The ChIP sequencing results indicate the enrichment TriMethyl-Histone H3-K9 in selected genomic region and representative gene loci (RPL30), as shown in figure.



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.



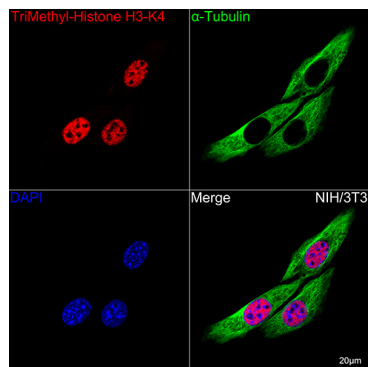
CUT&Tag was performed using the CUT&Tag

Dot-blot analysis of all sorts of peptides

Confocal imaging of HeLa cells

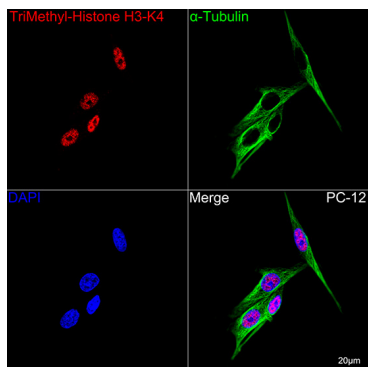
Validation Data

Assay Kit (pAG-Tn5) for Illumina(RK20265) from 10^5 K562 cells with 1 μ g TriMethyl-Histone H3-K4 antibody (A22146), along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of H3K4me3 in representative gene loci (GAPDH), as shown in figure.



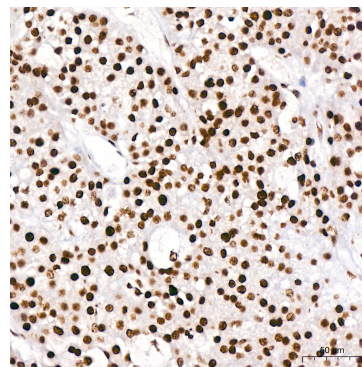
Confocal imaging of NIH/3T3 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation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

using TriMethyl-Histone H3-K4 antibody (A22146) at 1:50000 dilution.

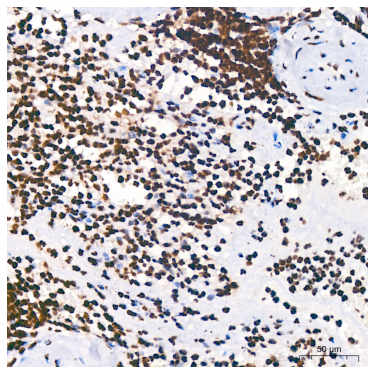


Confocal imaging of PC-12 cells using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation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

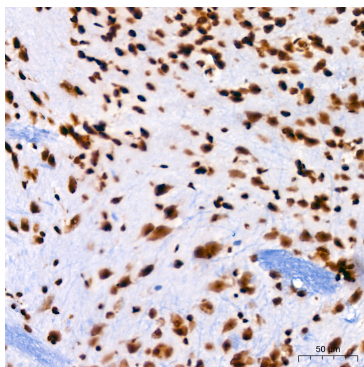
using TriMethyl-Histone H3-K4 Rabbit mAb (A22146, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat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



Immunohistochemistry analysis of TriMethyl-Histone H3-K4 in paraffin-embedded human liver cancer using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at dilution of 1:200 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



Immunohistochemistry analysis of TriMethyl-Histone H3-K4 in paraffin-embedded human spleen using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at dilution of 1:200 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



Immunohistochemistry analysis of TriMethyl-Histone H3-K4 in paraffin-embedded mouse brain using TriMethyl-Histone H3-K4 Rabbit mAb (A22146) at dilution of 1:200 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.