

## Histone H3K79me2 (H3K79 Dimethyl) Polyclonal Antibody

(Catalog # A-4044)

### 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 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.

### Description

Histone H3K79me2 (H3K79 Dimethyl) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

### Formulation

Buffer: PBS with 0.01% thiomersal, 50% glycerol, pH7.3.

### Specificity

Broad Range, Mouse, Rat, Human

### Isotype

IgG

### Uniprot ID

Q16695

### Purification

Affinity Purified

### Immunogen

A synthetic dimethylated peptide around K79 of human Histone H3 (NP\_003520.1).

### Storage

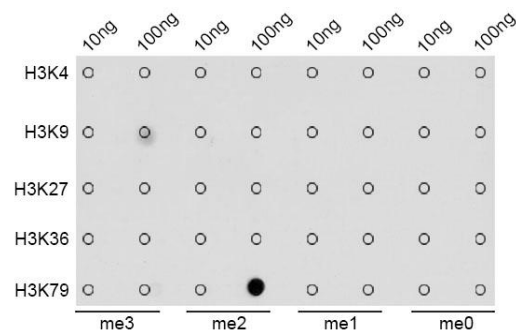
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

### Alternative Names

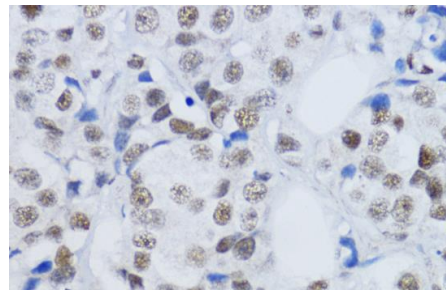
H3.4; H3/g; H3FT; H3t; MGC126886; MGC126888; H3K79me2 antibody; H3K79m2 antibody

### Application

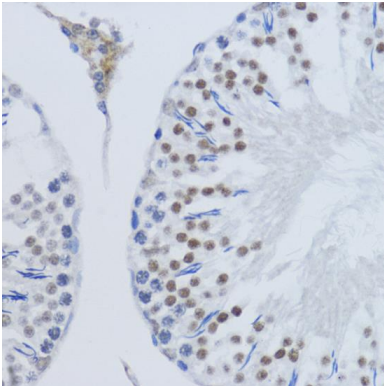
WB, IHC, IF, IP, ChIP, ChIPseq; Recommended dilution: WB 1:500 - 1:1000, IHC 1:50 - 1:100, IF 1:50 - 1:200, IP 1:500 - 1:1000, ChIP 1:500 - 1:1000, ChIP-seq 1:50 - 1:200



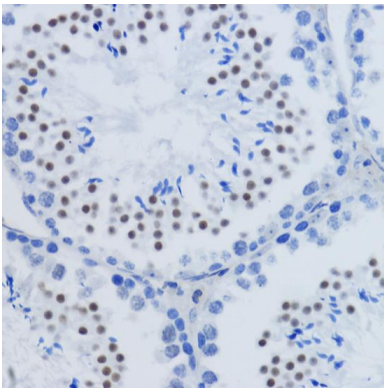
Dot-blot analysis of all sorts of methylation peptides using DiMethyl-Histone H3-K79 antibody.



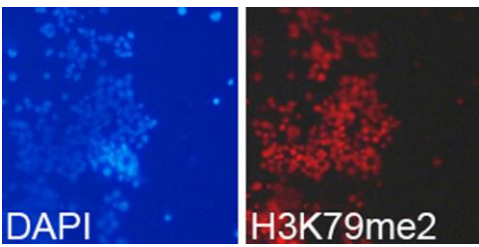
Immunohistochemistry of paraffin-embedded human mammary cancer using DiMethyl-Histone H3-K79 antibody at dilution of 1:200 (40x lens).



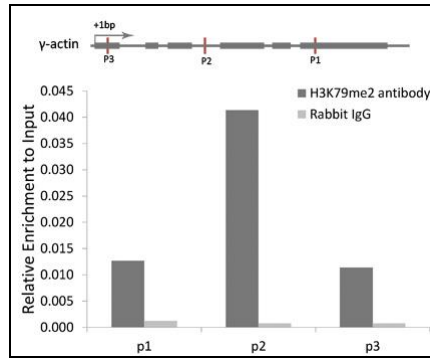
Immunohistochemistry of paraffin-embedded rat testis using DiMethyl-Histone H3-K79 antibody at dilution of 1:200 (40x lens).



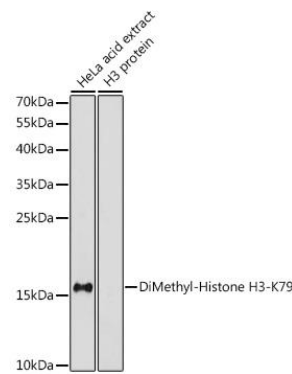
Immunohistochemistry of paraffin-embedded mouse testis using DiMethyl-Histone H3-K79 antibody at dilution of 1:200 (40x lens).



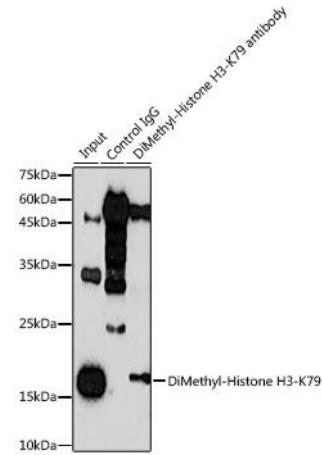
Immunofluorescence analysis of 293T cells using DiMethyl-Histone H3-K79 antibody. Blue: DAPI for nuclear staining.



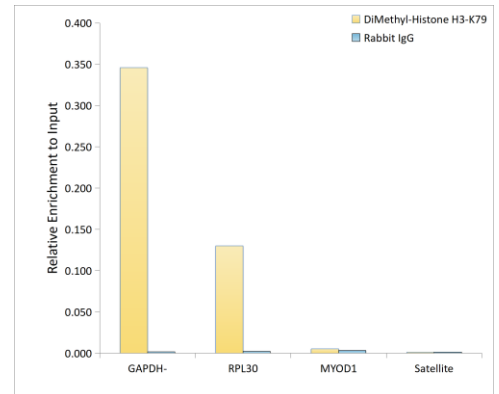
Chromatin Immunoprecipitation analysis of  $\gamma$ -actin gene from 293 cell line, using DiMethyl-Histone H3-K79 antibody and rabbit IgG. P1, P2 and P3 were probes located on  $\gamma$ -actin gene as the schematic diagram illustrated. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.



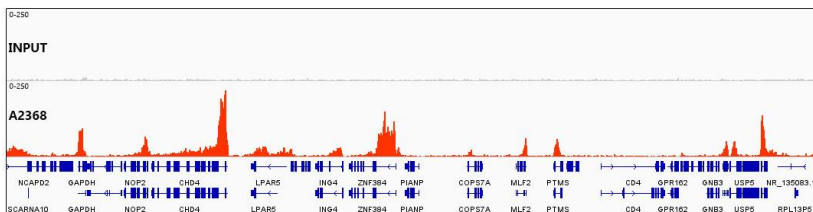
Western blot analysis of extracts of HeLa cells, using DiMethyl-Histone H3-K79 antibody at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25 $\mu$ g per lane. Blocking buffer: 3% nonfat dry milk in TBST.



Immunoprecipitation analysis of 300  $\mu$ g extracts of HeLa cells using 3  $\mu$ g DiMethyl-Histone H3-K79 antibody. Western blot was performed from the immunoprecipitate using DiMethyl-Histone H3-K79 antibody at a dilution of 1:1000.



Chromatin immunoprecipitation analysis of extracts of MCF7 cells, using DiMethyl-Histone H3-K79 antibody 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 immunoprecipitations were performed with cross-linked chromatin from K-562 cells and DiMethyl-Histone H3-K79 Rabbit pAb. The ChIP sequencing results indicate the enrichment pattern of DiMethyl-Histone H3-K79 in selected genomic region and representative gene loci (GAPDH), as shown in figure.