
Histone H3K9me3 (H3K9 Trimethyl) Polyclonal Antibody

(Catalog # A-4036)

Background

Modulation of chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of DNA wound around eight core histone proteins (two each of H2A, H2B, H3, and H4), is the primary building block of chromatin (1). The amino-terminal tails of core histones undergo various post-translational modifications, including acetylation, phosphorylation, methylation, and ubiquitination (2-5). These modifications occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression (6). In most species, histone H2B is primarily acetylated at Lys5, 12, 15, and 20 (4,7). Histone H3 is primarily acetylated at Lys9, 14, 18, 23, 27, and 56. Acetylation of H3 at Lys9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms (2,3). Phosphorylation at Ser10, Ser28, and Thr11 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis (8-10). Phosphorylation at Thr3 of histone H3 is highly conserved among many species and is catalyzed by the kinase haspin. Immunostaining with phospho-specific antibodies in mammalian cells reveals mitotic phosphorylation at Thr3 of H3 in prophase and its dephosphorylation during anaphase (11).

Description

Histone H3K9me3 (H3K9 Trimethyl) 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 trimethylated peptide around K9 of human histone H3 (NP_003520.1)

Storage

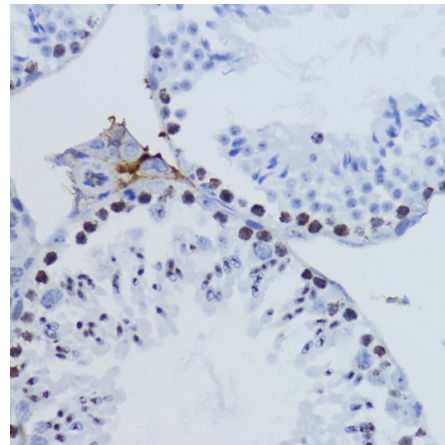
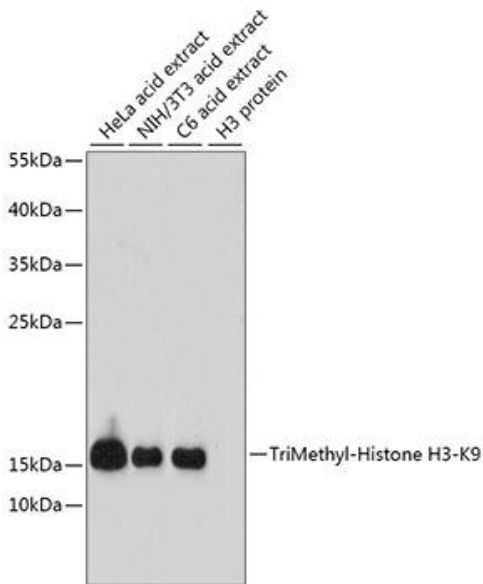
Shipped at 4°C. Upon receipt, store at -20°C. Avoid repeated freeze.

Alternative Names

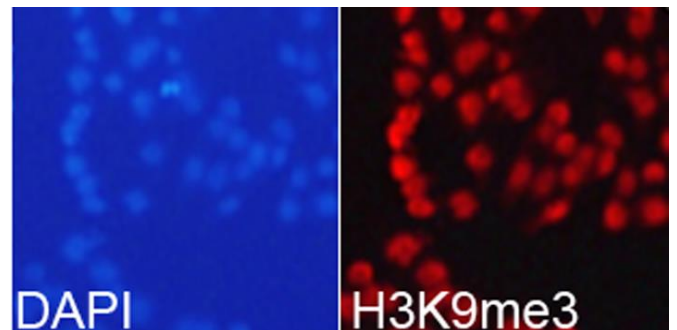
H3K9me3 antibody; H3K9m3 antibody; HIST1H3J; H3/j; H3FJ; Histone H3.1; Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d; Histone H3/f; Histone H3/h; Histone H3/l; Histone H3/j; Histone H3/k; Histone H3/l; HIST3H3

Application

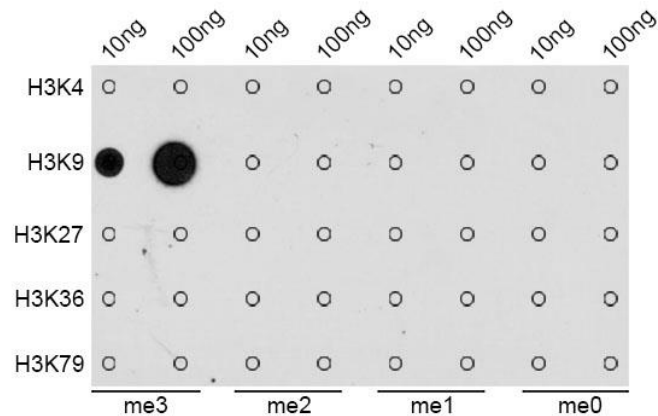
DB, WB, IHC, IF, ChIP; Recommended dilution: DB 1:500 - 1:2000, WB 1:500 - 1:2000, IHC 1:50 - 1:200, IF 1:50 - 1:200, ChIP 1:50 - 1:200



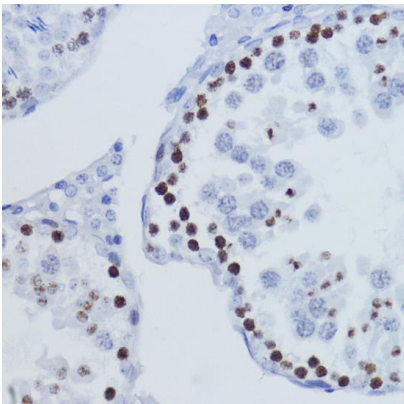
Immunohistochemistry of paraffin-embedded mouse testis using TriMethyl-Histone H3-K9 antibody at dilution of 1:200 (40x lens).



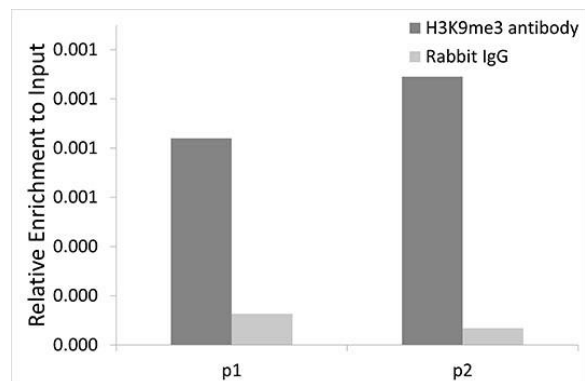
Immunofluorescence analysis of 293T cells using TriMethyl-Histone H3-K9 antibody. Blue: DAPI for nuclear staining.



Dot-blot analysis of all sorts of methylation peptides using TriMethyl-Histone H3-K9 antibody.



Immunohistochemistry of paraffin-embedded rat testis using TriMethyl-Histone H3-K9 antibody at dilution of 1:200 (40x lens).



Chromatin immunoprecipitation analysis of extracts of 293T cells, using TriMethyl-Histone H3-K9 antibody and rabbit IgG. P1 and P2 were located on EBAG9 gene. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.