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Histone H3R8 Monomethyl (H3R8me1) Polyclonal Antibody

(Catalog # A-3715)

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. The amino-terminal tails of core histones undergo various post-translational modifications, including acetylation, phosphorylation, methylation, and ubiquitination. 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. In most species, histone H2B is primarily acetylated at Lys5, 12, 15, and 20. 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. Phosphorylation at Ser10, Ser28, and Thr11 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis. 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.

Description

Histone H3R8 Monomethyl (H3R8me1) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

Formulation

Liquid. PBS with 0.02% sodium azide, 50% glycerol, pH7.3

Specificity

Human, Mouse, Rat, Broad Range

Isotype

IgG

Uniprot ID

Q16695

Purification

Affinity Purified

Immunogen

Synthetic Peptide of Human MonoMethyl-Histone H3-R8

Storage

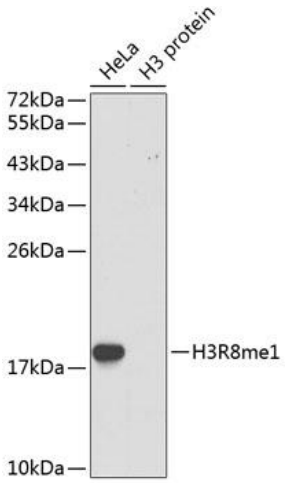
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

Alternative Names

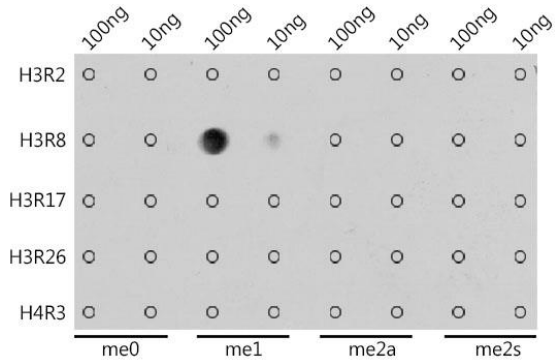
H3R8me1, HIST1H3J, H3/j , H3FJ , Histone H3.1, Histone H3/a, Histone H3/b, Histone H3/c, Histone H3/d, Histone H3/f, Histone H3/h , Histone H3/I, Histone H3/j , Histone H3/k, Histone H3/l, HIST3H3, H3 Arginine 8 me1

Application

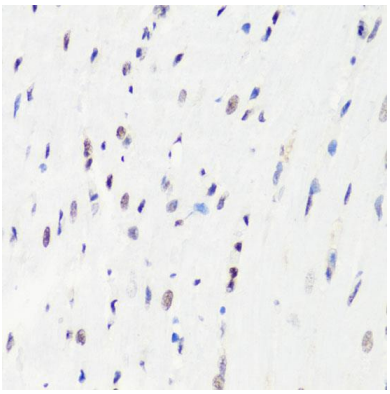
WB, IHC, IF, IP, ChIP, ChIPseq; Recommended dilution: WB 1:500 - 1:2000, IHC 1:50 - 1:200, IF 1:50 - 1:200, IP 1:50 - 1:200, ChIP 1:20 - 1:100, CHIPseq 1:20 - 1:100



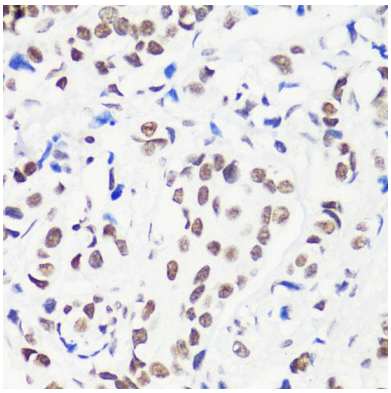
Western blot analysis of extracts of various cell lines, using MonoMethyl-Histone H3-R8 antibody.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution.
Lysates/proteins: 25ug per lane.
Blocking buffer: 3% nonfat dry milk in TBST.



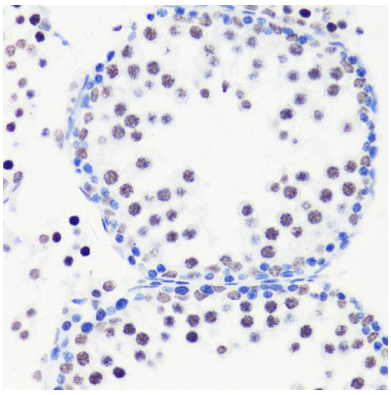
Dot-blot analysis of all sorts of methylation peptides using MonoMethyl-Histone H3-R8 antibody at 1:1000 dilution.



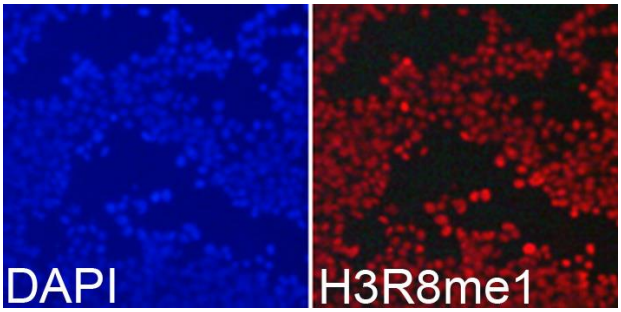
Immunohistochemistry of paraffin-embedded rat heart using MonoMethyl-Histone H3-R8 antibody at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded human breast cancer using MonoMethyl-Histone H3-R8 antibody at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded mouse testis using MonoMethyl-Histone H3-R8 antibody at dilution of 1:100 (40x lens).



Immunofluorescence analysis of 293T cells using MonoMethyl-Histone H3-R8 antibody. Blue: DAPI for nuclear staining.