

HIST3H3

Reactivity: Human Mouse Rat Other (Wide Range)

Tested applications: WB IHC IF IP ChIP

Recommended Dilution: WB 1:500 - 1:2000 IHC 1:50 - 1:200 IF 1:50 - 1:200 IP 1:50 - 1:200

ChIP 1:50 - 1:200

Calculated MW: 15kDa

Observed MW: Refer to Figures

Immunogen:

A synthetic peptide of human HIST3H3

Storage Buffer:

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Synonym:

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;

Catalog #: AC016

Antibody Type:

Polyclonal Antibody

Species: Rabbit

Gene ID: 8290

Isotype: IgG

Swiss Prot: Q16695

Purity: Affinity purification

For research use only.

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).

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