E92348

Histone H3Polyclonal Antibody

Catalog Number: E92348
Amount: 100ul
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).
Species: Rabbit
Isotype: IgG
Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Synonyms: HIST1H3J; H3/j ;H3FJ ; Histone H3.1; Histone H3/a; Histone H3/b;HistoneH3/c; Histone H3/d; Histone H3/f;Histone H3/h ; Histone H3/I;Histone H3/j ;Histone H3/k; Histone H3/l; HIST3H3;
Immunogen: Recombinant protein of human Histone H3
Purification: Affinity purification
Reactivity: H M R Other (Wide Range)
Applications: WB IHC IF IP CHIP
Molecular Weight: 15kDa
Swiss-Prot No. : Q16695
Gene ID: 8290
References: 1. Workman, J.L. and Kingston, R.E. (1998) Annu Rev Biochem 67, 545-79. 2. Hansen, J.C. et al. (1998) Biochemistry 37, 17637-41. 3. Strahl, B.D. and Allis, C.D. (2000) Nature 403, 41-5. 4. Cheung, P. et al. (2000) Cell 103, 263-71. 5. Bernstein, B.E. and Schreiber, S.L. (2002) ChemBiol 9, 1167-73. 6. Jaskelioff, M. and Peterson, C.L. (2003) Nat Cell Biol 5, 395-9. 7. Thorne, A.W. et al. (1990) Eur J Biochem 193, 701-13. 8. Hendzel, M.J. et al. (1997) Chromosoma 106, 348-60. 9. Goto, H. et al. (1999) J BiolChem 274, 25543-9. 10. Preuss, U. et al. (2003) Nucleic Acids Res 31, 878-85. 11. Dai, J. et al. (2005) Genes Dev 19, 472-88.

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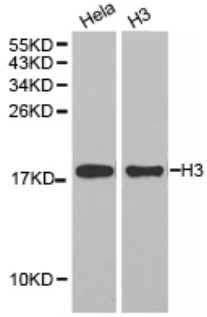
WB 1:500 - 1:2000

IHC 1:50- 1:200

IF 1:50- 1:200

IP 1:50- 1:200

CHIP 1:50- 1:200



Western blot analysis of extracts of HeLa cellline and H3 protein expressed in E.coli., usingHistone H3 antibody.

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