

Histone H3K36me1 Polyclonal Antibody

Catalog No: #HW009

Package Size: #HW009-1 50ul #HW009-2 100ul

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Description

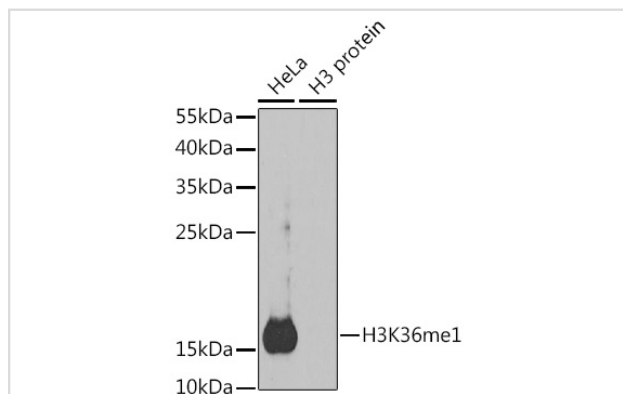
Product Name	Histone H3K36me1 Polyclonal Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits and were purified by antigen affinity-chromatography.
Applications	WB,IHC,IF
Species Reactivity	Human;Mouse;Rat
Immunogen Type	Peptide
Immunogen Description	A synthetic methylated peptide corresponding to residues surrounding K36 of human histone H3
Conjugates	Unconjugated
Target Name	Histone H3
Modification	Methyl
Other Names	HIST1H3J; H3/j; H3FJ; Histone H3.1; Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d; Histone H3/f;
Accession No.	Gene ID: 8290 Swiss Prot: Q16695
SDS-PAGE MW	15kDa
Concentration	1.0mg/ml
Formulation	Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage	Store at -20oC or -80oC. Avoid freeze / thaw cycles.

Application Details

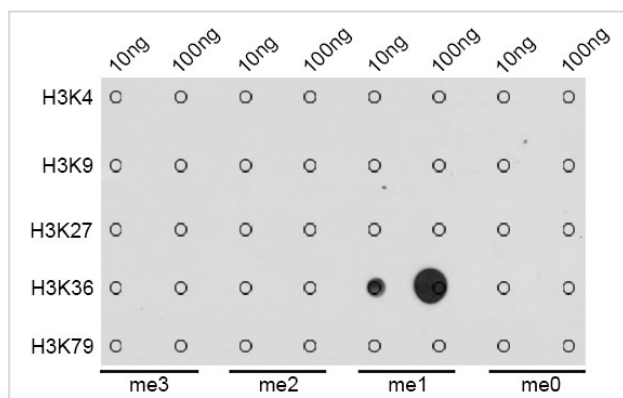
WB 1:500 - 1:2000

IF 1:50 - 1:200

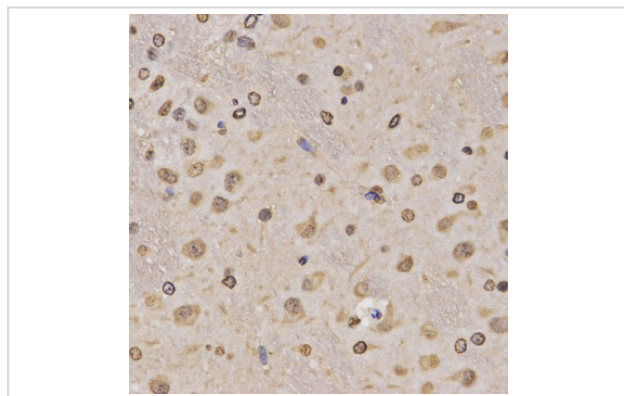
Images



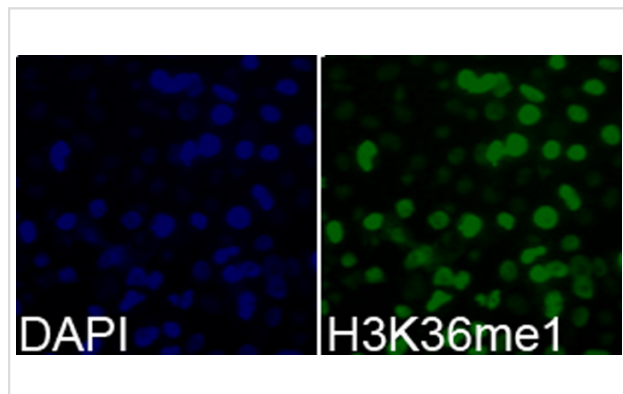
Western blot analysis of extracts of various cell lines, using MonoMethyl-Histone H3-K36 antibody.



Dot-blot analysis of all sorts of methylation peptides using MonoMethyl-Histone H3-K36 antibody.



Immunohistochemistry of paraffin-embedded rat brain using MonoMethyl-Histone H3-K36 antibody at dilution of 1:200 (40x lens).



Immunofluorescence analysis of 293T cells using MonoMethyl-Histone H3-K36 antibody. Blue: DAPI for nuclear staining.

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).

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) *Chem Biol* 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 Biol Chem 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.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.