

Product datasheet for **TA332512**

H3FT (HIST3H3) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ChIP, Dot, ICC/IF, IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000;IF 1:50-1:200;ChIP 1:50 - 1:200
Reactivity:	Human, Mouse, Rat, Other (Wide Range)
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	A synthetic methylated peptide corresponding to residues surrounding K9 of human histone H3
Formulation:	Store at -20°C (regular) and -80°C (long term). Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	136
Gene Name:	histone cluster 3, H3
Database Link:	NP_003484 Entrez Gene 691496 Rat Entrez Gene 8290 Human Q16695



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Background:

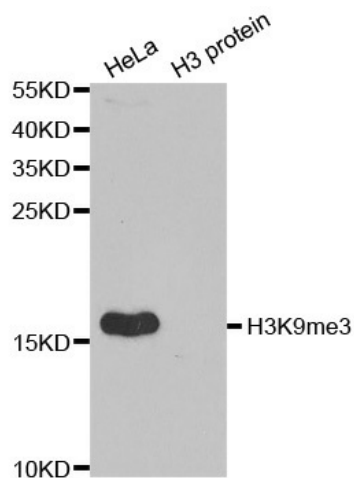
Modulation of chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of DNA wound around eight core histone proteins (two each of H2A, H2B, H3, and H4), is the primary building block of chromatin (1). The amino-terminal tails of core histones 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).

Synonyms:

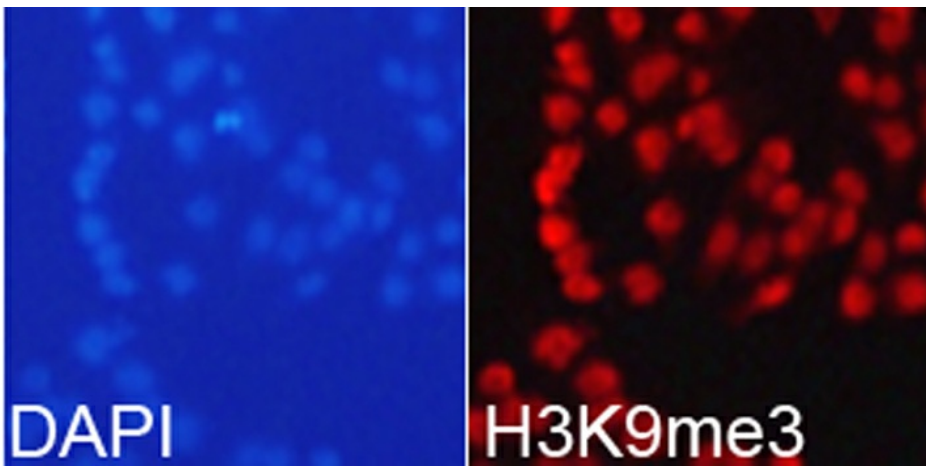
g; H3; H3.4; H3FT; H3t

Protein Pathways:

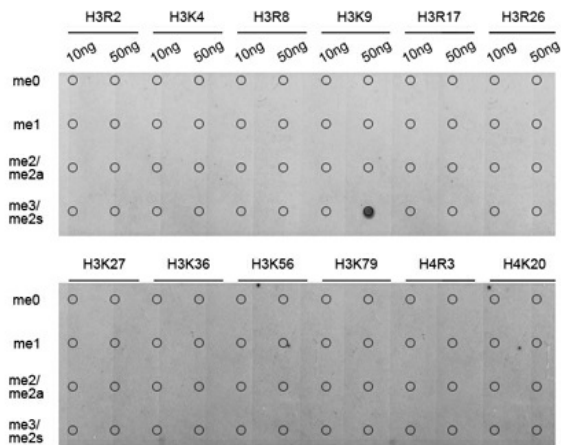
Systemic lupus erythematosus

Product images:

Western blot analysis of extracts of HeLa cell line and H3 protein expressed in E.coli., using H3K9me3 antibody.



Immunofluorescence analysis of 293T cell using H3K9me3 antibody. Blue: DAPI for nuclear staining.



Dot-blot analysis of all sorts of methylation peptides using H3K9me3 antibody.