



Anti-Histone H3 (mono methyl K4) polyclonal antibody (CABT-BL6093)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	A synthetic methylated peptide corresponding to residues surrounding K4 of human histone H3
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse, Rat, Other (Wide, range)
Purification	Affinity purification
Conjugate	Unconjugated
Applications	WB; IHC; IF; IP; CHIP; CHIPseq
Molecular Weight	15kDa
Format	Liquid
Size	100 µl
Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Preservative	0.02% Sodium Azide
Storage	Store at -20°C. Avoid freeze / thaw cycles.

BACKGROUND

Introduction	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
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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).

GENE INFORMATION

Entrez Gene ID	8290
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UniProt ID	Q16695
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