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Rabbit Anti-Histone H3 (acetyl K9, phospho S10) antibody

SL3748R

Product Name:	Histone H3 (acetyl K9, phospho S10)
Chinese Name:	乙酰化和磷酸化组蛋白H3抗体
Alias:	Histone H3 (phospho S10, acetyl K9); Acetyl and phospho-Histone H3 (Ac-K9/p-Ser10); Histone H3 (Ac-K9/p-Ser10); Histone H3 (Acetyl-K9/phospho-Ser10); Histone H3 (Ac-Lys9/p-Ser10); Histone H3 (Acetyl-Lys9/phospho-Ser10); H3 histone family member E pseudogene; H3F3; HIST3H3; Histone H3 3 pseudogene; H31_TETTH; Histone H3; H3S; Histone H3-I/H3-II; Major histone H3; H3F.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Rabbit,Fruit Fly,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	15kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Histone H3 around the site of Acetyl-Lys9 and phospho-Ser10:AR(Ac-K)(p-S)TG
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:	PubMed
Product Detail:	Modulation of the chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of four core histone proteins (H2A, H2B, H3 and H4), is the primary building block of chromatin. The N-terminal tail of core histones undergoes different posttranslational modifications including acetylation, phosphorylation and methylation. These modifications occur in response to cell signal stimuli and have a direct effect on gene expression. In most species, the histone H2B is primarily acetylated at lysines 5, 12, 15 and 20. Histone H3 is primarily acetylated at lysines 9, 14, 18 and 23. Acetylation at lysine 9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms. Phosphorylation at Ser10 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis. **Function:** Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. H3 is deposited into chromatin exclusively through a DNA replication-coupled pathway that can be associated with either DNA duplication or DNA repair synthesis during meiotic homologous recombination. **Subunit:** The nucleosome is a histone octamer containing two molecules each of H2A, H2B, H3 and H4 assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. The octamer wraps approximately 147 bp of DNA. Interacts with GCN5, whereby H3S10ph increases histone-protein interactions. Interacts with PDD1 and PDD3. **Subcellular Location:** Nucleus. Chromosome. Note=Localizes to both the large, transcriptionally active, somatic macronucleus (MAC) and the small, transcriptionally inert, germ line micronucleus (MIC). **Post-translational modifications:** Phosphorylated to form H3S10ph. H3S10ph promotes subsequent H3K14ac formation by GCN5. H3S10ph is only found in the mitotically dividing MIC, but not in the amitotically dividing MAC. H3S10ph is correlated with chromosome condensation during mitotic or meiotic micronuclear divisions. Acetylation of histone H3 leads to transcriptional activation. H3K14ac formation by GCN5 is promoted by H3S10ph. H3K9acK14ac is the preferred acetylated form of newly synthesized H3. Acetylation occurs almost exclusively in the MAC. Methylated to form H3K4me. H3K4me is only found in the transcriptionally active MAC. Methylated to form H3K9me in developing MACs during conjugation, when genome-wide DNA elimination occurs. At this stage, H3K9me specifically occurs on DNA sequences being eliminated (IES), probably targeted by small scan RNAs

(scnRNAs) bound to IES, and is required for efficient IES elimination. H3K9me is required for the interaction with the chromodomains of PDD1 and PDD3.
The full-length protein H3S (slow migrating) is converted to H3F (fast migrating) by proteolytic removal of the first 6 residues. H3F is unique to MIC, and processing seems to occur regularly each generation at a specific point in the cell cycle.

Similarity:
Belongs to the histone H3 family.

SWISS:
P68431

Gene ID:
8290

Database links:

Entrez Gene: 8290Human

Entrez Gene: 8350Human

Entrez Gene: 8351Human

Entrez Gene: 8352Human

Entrez Gene: 8353Human

Entrez Gene: 8354Human

Entrez Gene: 8355Human

Entrez Gene: 8356Human

Entrez Gene: 8357Human

Entrez Gene: 8358Human

Entrez Gene: 8968Human

Entrez Gene: 260423Mouse

Entrez Gene: 319148Mouse

Entrez Gene: 319149Mouse

Entrez Gene: 319150Mouse

	Entrez Gene: 319151Mouse Entrez Gene: 319152Mouse Entrez Gene: 319153Mouse Entrez Gene: 360198Mouse Entrez Gene: 97908Mouse Entrez Gene: 100364501Rat Entrez Gene: 100365669Rat Entrez Gene: 291159Rat Entrez Gene: 314977Rat Entrez Gene: 364716Rat Entrez Gene: 679950Rat Entrez Gene: 679994Rat Entrez Gene: 680511Rat Entrez Gene: 680599Rat Entrez Gene: 682330Rat Entrez Gene: 691496Rat Omim: 601128Human Omim: 602810Human Omim: 602811Human Omim: 602812Human Omim: 602813Human Omim: 602814Human Omim: 602815Human Omim: 602816Human Omim: 602817Human

	Omim: 602818Human Omim: 602819Human SwissProt: P68431Human SwissProt: P84243Human SwissProt: Q16695Human SwissProt: Q6NXT2Human SwissProt: Q71DI3Human SwissProt: P68433Mouse SwissProt: P84228Mouse SwissProt: Q6LED0Rat Unigene: 132854Human Unigene: 247813Human Unigene: 247814Human Unigene: 248176Human Unigene: 443021Human Unigene: 484990Human Unigene: 532144Human Unigene: 533292Human Unigene: 546315Human Unigene: 586261Human Unigene: 591778Human Unigene: 221301Mouse Unigene: 261657Mouse Unigene: 377874Mouse Unigene: 390558Mouse

	Unigene: 397328Mouse Unigene: 138090Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.