Histone H2A (Acetyl Lys9) (PT0909R) PT™ Rabbit mAb

CatalogNo: YM8678 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,IP,ELISA,CHIP,Cut&Tag

MW
- 15kD (Calculated)

15kD (Observed)

Isotype
- IgG, Kappa

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Recommended Dilution Ratios

IHC 1:1000-1:4000
WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200
CHIP 1:50-1:100
Cut&Tag 1:50-1:100

Basic Information

Clonality	Monoclonal
Clone Number	PT0909R

Immunogen Information

Immunogen	The specific immunogen used to produce this antibody is proprietary information.

Specificity	Histone H2A (Acetyl Lys9) Antibody detects endogenous levels of Histone H2A protein only when acetylated at Lys9.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):QGgKA

Target Information

Gene name HIST1H2AB

Protein Name Histone H2A type 1-B/E

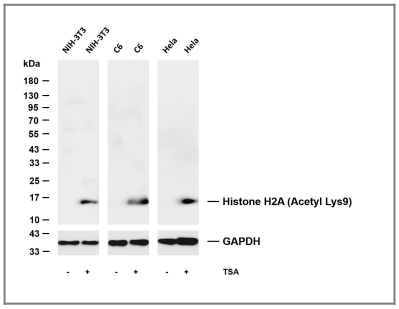
Organism	Gene ID	UniProt ID
Human	8329; 8332; 8336; 8969; 3012; 8335; 3013; 85235; 723790; 8337; 92815;	P0C0S8; P04908; P20671; Q96KK5; Q6FI13; Q7L7L0;
Mouse	319164; 15267; 319162;	P22752;
Rat	365877; 64646;	P02262; P0CC09; Q4FZT6;

Cellular Localization Nucleus

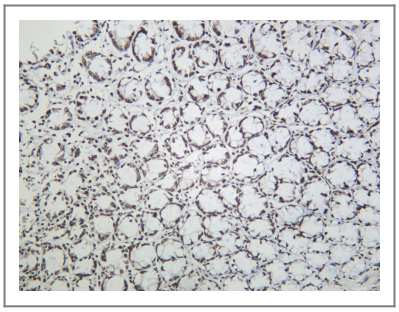
Tissue specificity Bone ,Brain ,Colon ,Eye ,Lymph ,PCR rescued clones ,Placenta ,Spleen

Function 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. ,mass spectrometry:Monoisotopic with N-acetylserine PubMed:16457589 ,PTM:Deiminated on Arg-4 in granulocytes upon calcium entry. ,PTM:Monoubiquitination of Lys-120 by RING1 and RNF2/RING2 complex gives a specific tag for epigenetic transcriptional repression and participates in X chromosome inactivation of female mammals. It is involved in the initiation of both imprinted and random X inactivation. Ubiquitinated H2A is enriched in inactive X chromosome chromatin. Ubiquitination of H2A functions downstream of methylation of 'Lys-27' of histone H3. Monoubiquitination of Lys-120 by RNF2/RING2 can also be induced by ultraviolet and may be involved in DNA repair. Following DNA double-strand breaks (DSBs) , it is ubiquitinated through 'Lys-63' linkage of ubiquitin moieties by the E2 ligase UBE2N and the E3 ligases RNF8 and RNF168 , leading to the recruitment of repair proteins to sites of DNA damage. Monoubiquitination and ionizing radiation-induced 'Lys-63'-linked ubiquitination are distinct events. ,PTM:Phosphorylation on Ser-2 is enhanced during mitosis. Phosphorylation on Ser-2 by RPS6KA5/MSK1 directly represses transcription. Acetylation of H3 inhibits Ser-2 phosphorylation by RPS6KA5/MSK1. ,PTM:Symmetric dimethylation on Arg-4 by the PRDM1/PRMT5 complex may play a crucial role in the germ-cell lineage. ,PTM:The chromatin-associated form is phosphorylated on Thr-121 during mitosis. ,similarity:Belongs to the histone H2A family. ,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. ,

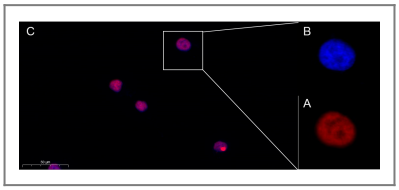
Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Histone H2A (Acetyl Lys9) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: NIH-3T3 Lane 2: NIH-3T3 was treated with TSA (400nM) for 18 hours Lane 3: C6 Lane 4: C6 was treated with TSA (500ng/ml) Lane 5: Hela Lane 6: Hela was treated with TSA (400nM) for 18 hours Predicted band size: 15kDa Observed band size: 15kDa



Rat colon was stained with anti-Histone H2A (Acetyl Lys9) Rabbit antibody



Immunofluorescence analysis of HeLa . Picture A: Histone H2A (Acetyl Lys9) (PT0909R) PT? Rabbit mAb (red). Picture B: DAPI (blue). Picture C: Merge of A+B

Contact information

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Please scan the QR code to access additional product information: **Histone H2A (Acetyl Lys9) (PT0909R) PT™ Rabbit mAb**

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