



## Mouse Monoclonal Antibody **Histone H2A** conjugated to Sepharose Beads

CatalogNo: **ANT8200-M**

Size 200ul

Storage Store at 4 °C for frequent use

### Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified beads. It is useful for immunoprecipitation.

### **Histone H2A (ANT0040R) Rabbit mAb**

Formulation: Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg ANaN3.

#### Host Species

- Rabbit
- Human, Mouse, Rat,

#### Reactivity

- WB, IHC, IF, IP, ELISA

#### Applications

#### MW

- 14kD (Calculated)
- 17kD (Observed)

#### Isotype

- IgG, Kappa

## **Recommended Dilution Ratios**

### **IP**

## **Basic Information**

#### Clonality

Monoclonal

Clone Number      ANT0040R

Immunogen Information

Specificity      Endogenous

Gene name      HIST1H2AB

Protein Name      Histone H2A type 1-B/E

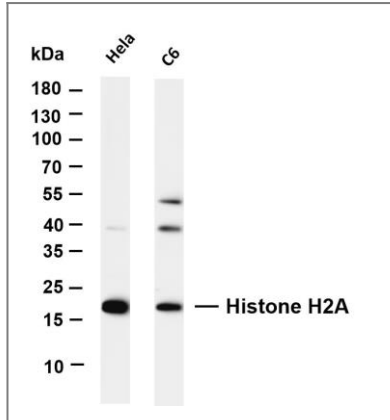
Organism	Gene ID	UniProt ID
Human	<a href="#">8329</a> ; <a href="#">8332</a> ; <a href="#">8336</a> ; <a href="#">8969</a> ; <a href="#">3012</a> ; <a href="#">8335</a> ; <a href="#">3013</a> ; <a href="#">P0C0S8</a> ; <a href="#">P04908</a> ; <a href="#">P20671</a> ; <a href="#">Q96KK5</a> ; <a href="#">85235</a> ; <a href="#">723790</a> ; <a href="#">8337</a> ; <a href="#">92815</a> ;	<a href="#">Q6FI13</a> ; <a href="#">Q7L7L0</a> ;
Mouse	<a href="#">319164</a> ; <a href="#">319168</a> ;	
Rat		<a href="#">P02262</a> ;

Cellular      Nucleus  
Localization

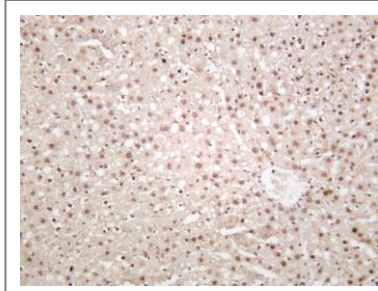
Tissue specificity      Bone,Brain,Colon,Eye,Lymph,PCR rescued clones,Placenta,Sple

**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,ANTM: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.,

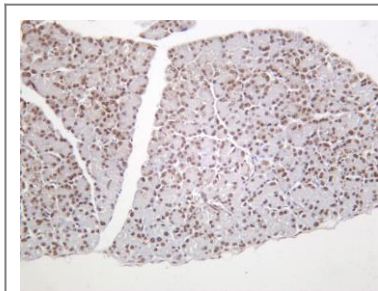
## Validation Data



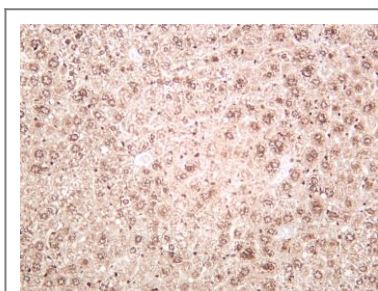
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Histone H2A (ANT0040R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: C6 Predicted band size: 14kDa Observed band size: 17kDa



Rat liver was stained with anti-Histone H2A (ANT0040R) rabbit antibody



Rat pancreas was stained with anti-Histone H2A (ANT0040R) rabbit antibody



Mouse liver was stained with anti-Histone H2A (ANT0040R) rabbit antibody

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