

Rabbit Acetyl-Histone H2A Polyclonal Antibody | anti-HIST1H2AB antibody

Acetyl-Histone H2A (Lys9) Antibody

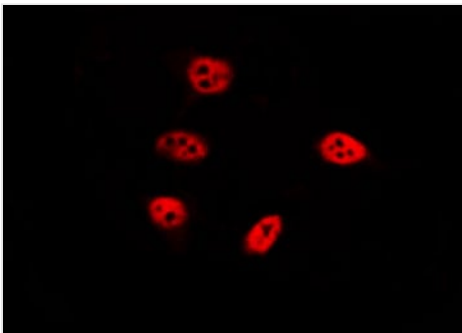
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA323672	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Acetyl-Histone H2A; Polyclonal Antibody; Acetyl-Histone H2A (Lys9) Antibody; H2A histone family member A; H2A histone family member M; H2A.1; H2A.2; H2A/a; H2A/m; H2A1B_HUMAN; H2AFA; H2AFM; HIST1H2AB; HIST1H2AE; Histone 1 H2ab; Histone 1 H2ae; Histone cluster 1 H2ab; Histone cluster 1 H2ae; Histone H2A type 1-B/E; Histone H2A.2; Histone H2A/a; Histone H2A/m; Histone H2AE; anti-HIST1H2AB antibody

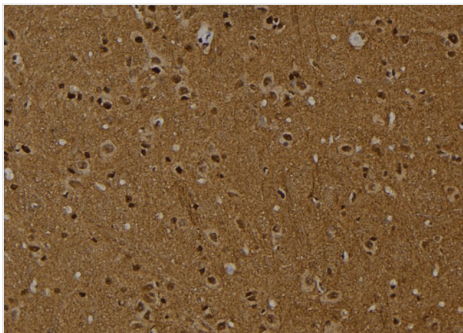
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Histone H2A (acetyl K9) antibody detects endogenous levels of total Histone H2A (acetyl K9)
Purity/Purification	Immunogen affinity purified
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	130
Applicable Applications for anti-HIST1H2AB antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Histone H2A (acetyl K9)
Subcellular Location	Nucleus. Chromosome.
Conjugation	Unconjugated
Epitope	Acetyl Lys9
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



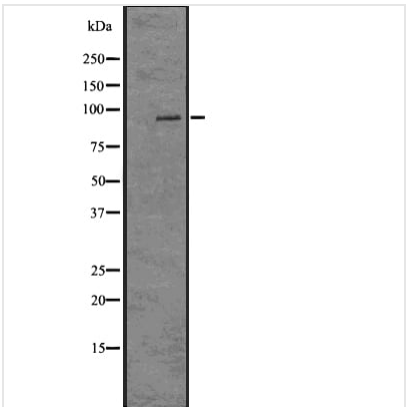
IF (Immunofluorescence)

AAA323672 staining LOVO by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemistry)

AAA323672 at 1/100 staining Rat brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of Histone H2A (acetyl K9) using HeLa whole cell lysates

ADDITIONAL INFORMATION

Related Product Information for anti-HIST1H2AB antibody	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. Subunit Structure: 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. Post-translational Modifications: Deiminated on Arg-4 in granulocytes upon calcium entry. Monoubiquitination of Lys-120 (H2AK119Ub) by RING1, TRIM27 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 (H3K27me). H2AK119Ub by RNF2/RING2 can also be induced by ultraviolet and may be involved in DNA repair. Monoubiquitination of Lys-120 (H2AK119Ub) by TRIM27 may promote transformation of cells in a number of breast cancers (PubMed:25470042). 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. Ubiquitination at Lys-14 and Lys-16 (H2AK13Ub and H2AK15Ub, respectively) in response to DNA damage is initiated by RNF168 that mediates monoubiquitination at these 2 sites, and 'Lys-63'-linked ubiquitin are then conjugated to monoubiquitin; RNF8 is able to extend 'Lys-63'-linked ubiquitin chains in vitro. Deubiquitinated by USP51 at Lys-14 and Lys-16 (H2AK13Ub and H2AK15Ub, respectively) after damaged DNA is repaired (PubMed:27083998). H2AK119Ub and ionizing radiation-induced 'Lys-63'-linked ubiquitination (H2AK13Ub and H2AK15Ub) are distinct events. Phosphorylation on Ser-2 (H2AS1ph) is enhanced during mitosis. Phosphorylation on Ser-2 by RPS6KA5/MSK1 directly represses transcription. Acetylation of H3 inhibits Ser-2 phosphorylation by RPS6KA5/MSK1. Phosphorylation at Thr-121 (H2AT120ph) by DCAF1 is present in the regulatory region of many tumor suppressor genes and down-regulates their transcription. Glutamine methylation at Gln-105 (H2AQ104me) by FBL is specifically dedicated to polymerase I. It is present at 35S ribosomal DNA locus and impairs binding of the FACT complex (PubMed:24352239). Symmetric dimethylation on Arg-4 by the PRDM1/PRMT5 complex may play a crucial role in the germ-cell lineage. Crotonylation (Kcr) is specifically present in male germ cells and marks testis-specific genes in post-meiotic cells, including X-linked genes that escape sex chromosome inactivation in haploid cells. Crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors. It is also associated with post-meiotically activated genes on autosomes. Similarity: Belongs to the histone H2A family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	19557656
NCBI GeneID	8335
NCBI Accession #	NP_003504.2
NCBI GenBank Nucleotide #	NM_003513.2
UniProt Accession #	P04908; P28001; Q76P63
Molecular Weight	Observed: 14 kDa Predicted: 15 kDa
NCBI Official Full Name	histone H2A type 1-B/E
NCBI Official Synonym Full Names	histone cluster 1 H2A family member b
NCBI Official Symbol	HIST1H2AB
NCBI Official Synonym Symbols	H2A/m; H2AFM
NCBI Protein Information	histone H2A type 1-B/E
UniProt Protein Name	Histone H2A type 1-B/E
UniProt Gene Name	HIST1H2AB
UniProt Synonym Gene Names	H2AFM

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/acetyl-histone-h2a-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/323672>