

Product Name: Histone H2A (phospho Thr121) Rabbit Polyclonal Antibody
Catalog #: APRab04774



Summary

Production Name	Histone H2A (phospho Thr121) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA,IHC,WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	HIST1H2AB
Alternative Names	HIST1H2AG; H2AFP; HIST1H2AI; H2AFC; HIST1H2AK; H2AFD; HIST1H2AL; H2AFI; HIST1H2AM; H2AFN; Histone H2A type 1; H2A.1; Histone H2A/p; HIST1H2AB; H2AFM; HIST1H2AE; H2AFA; Histone H2A type 1-B/E; Histone H2A.2; Histone H2A/a; Histone H2A/m; HIS
Gene ID	8329/8332/8336/8969/3012/8335/3013/85235/723790/8337/92815 P0C0S8/P04908/P20671/Q96KK5/Q6FI13/Q7L7L0.The antiserum was produced
SwissProt ID	against synthesized peptide derived from human Histone H2A around the phosphorylation site of Thr121. AA range:81-130

Application

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Dilution Ratio WB 1:500-2000 ,IHC 1:100 - 1:300. ELISA: 1:5000..

Molecular Weight

Background

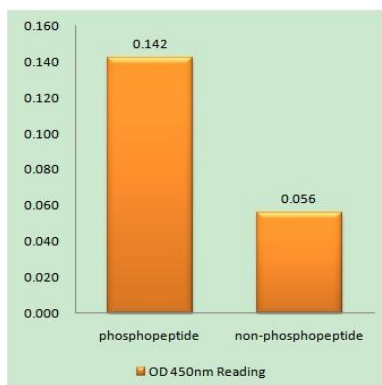
Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene is intronless and encodes a replication-dependent histone that is a member of the histone H2A family. Transcripts from this gene lack polyA tails but instead contain a palindromic termination element. This gene is found in the small histone gene cluster on chromosome 6p22-p21.3. [provided by RefSeq, Aug 2015],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.,

Research Area

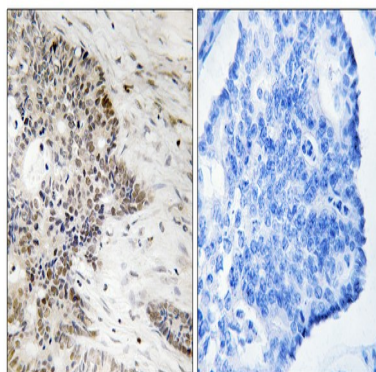
Protein_Acetylation

Image Data

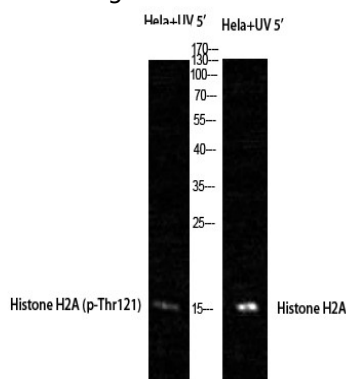
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Histone H2A (Phospho-Thr121) Antibody



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using Histone H2A (Phospho-Thr121) Antibody. The picture on the right is blocked with the phospho peptide.



Western Blot analysis of HeLa+UV 5' cells using Phospho-Histone H2A (T121) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).

Note

For research use only.