Rabbit Anti-Human Acetyl-Histone H2A (Lys5) Polyclonal Antibody

**CABT-LM00282**  Rabbit(H2AFX)
Lot. No. (See product label)

**PRODUCT INFORMATION**

**Product Overview**
Rabbit Polyclonal Antibody to Human Acetyl-Histone H2A (Lys5) molecule

**Antigen Description**
Modulation of chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of DNA wound around eight core histone proteins (two each of H2A, H2B, H3, and H4), is the primary building block of chromatin. The amino-terminal tails of core histones undergo various post-translational modifications, including acetylation, phosphorylation, methylation, and ubiquitination. These modifications occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression. In most species, histone H2B is primarily acetylated at Lys5, 12, 15, and 20. Histone H3 is primarily acetylated at Lys9, 14, 18, 23, 27, and 56. Acetylation of H3 at Lys9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms. Phosphorylation at Ser10, Ser28, and Thr11 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis. Phosphorylation at Thr3 of histone H3 is highly conserved among many species and is catalyzed by the kinase haspin. Immunostaining with phospho-specific antibodies in mammalian cells reveals mitotic phosphorylation at Thr3 of H3 in prophase and its dephosphorylation during anaphase.

**Specificity**
Acetyl-Histone H2A (Lys5) Antibody detects endogenous levels of histone H2A only when acetylated at lysine 5. This antibody does not cross-react with other acetylated histones.

**Target**
Acetyl-Histone H2A (Lys5)

**Immunogen**
a synthetic acetylated peptide corresponding to residues surrounding Lys5 of human histone H2A

**Host**
Rabbit

**Source**
Polyclonal antibodies are produced by immunizing animals with a synthetic acetylated peptide corresponding to residues surrounding Lys5 of human histone H2A. Antibodies are purified by protein A and peptide affinity chromatography.

**Species**
Human

**Cross Reactivity**
Mouse, Rat, Monkey

**Conjugation**
N/A

**Applications**
WB, IP, IHC-P

**Dilution**
- WB: 1:1000
- IP: 1:50
- IHC-P: 1:100

**Sensitivity**
Endogenous

**Molecular Weight**
14 kDa

**PACKAGING**

**Storage**
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20 °C.

**Warning**
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

**ANTIGEN GENE INFORMATION**

**Gene Name**
H2AFX H2A histone family, member X [ Homo sapiens ]
**Official Symbol**  
H2AFX

**Synonyms**  
H2AFX; H2A histone family, member X; H2AX; histone H2A.x; H2AX histone; H2A.X; H2A/X

**Gene ID**  
3014

**mRNA Refseq**  
NM_002105

**Protein Refseq**  
NP_002096

**MIM**  
601772

**UniProt ID**  
P0C0S8

**Chromosome Location**  
11q23.3

**Pathway**  
ATM mediated phosphorylation of repair proteins, organism-specific biosystem; ATM mediated response to DNA double-strand break, organism-specific biosystem; Amyloids, organism-specific biosystem; Assembly of the RAD50-MRE11-NBS1 complex at DNA double-strand breaks, organism-specific biosystem; Cell Cycle, organism-specific biosystem; Chromosome Maintenance, organism-specific biosystem; DNA Repair, organism-specific biosystem;

**Function**  
DNA binding; enzyme binding; histone binding; protein binding

**REFERENCES**