Histone H2A (Ubiquityl Lys119) (PT0410R) PT™ Rabbit mAb

CatalogNo: YM8224 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

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

MW
- 14kD (Calculated)
23kD (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	PT0410R

Immunogen Information

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

Specificity	Endogenous

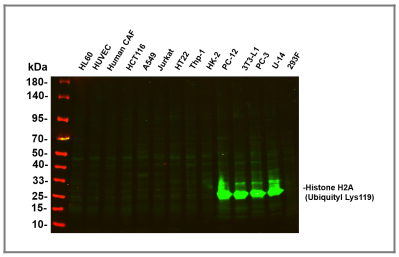
Target Information

Gene name	HIST1H2AG H2AFP; HIST1H2AI H2AFC; HIST1H2AK H2AFD; HIST1H2AL H2AFI; HIST1H2AM H2AFN
Protein Name	Histone H2A

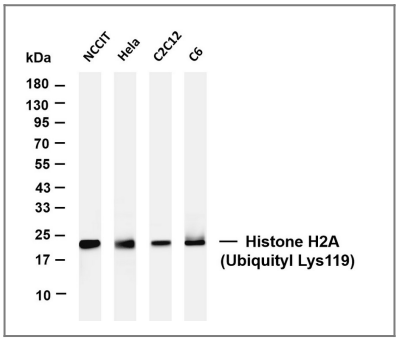
Organism	Gene ID	UniProt ID
Human	8329; 8332; 8336; 8969; 3012; 8335; 3013; 85235; 723790; 8337; 92815;	P0C0S8; P04908; P20671; Q96KK5; Q6FI13; Q7L7L0;
Mouse	319164; 15267; 319162;	P22752;
Rat	365877; 64646;	P02262; P0CC09; Q4FZT6;

Cellular Localization	Nucleus. Chromosome.
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. ,

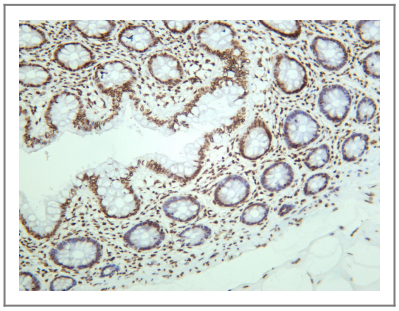
Validation Data



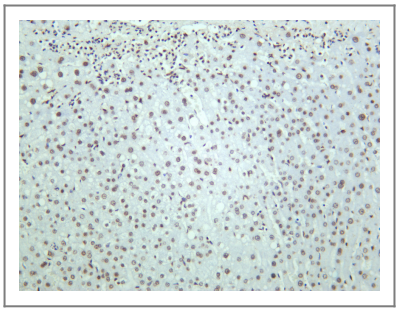
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4℃ over night with a 1:5000 dilution . The Dilight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 14kDa Observed band size: 25kDa



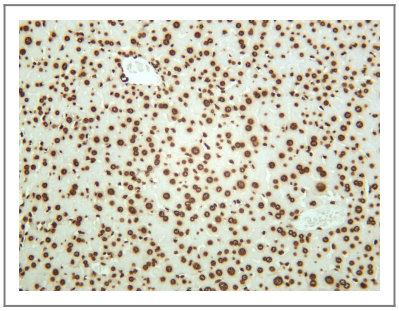
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Histone H2A (Ubiquityl Lys119) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: NCCIT Lane 2: Hela Lane 3: C2C12 Lane 4: C6 Predicted band size: 14kDa Observed band size: 23kDa



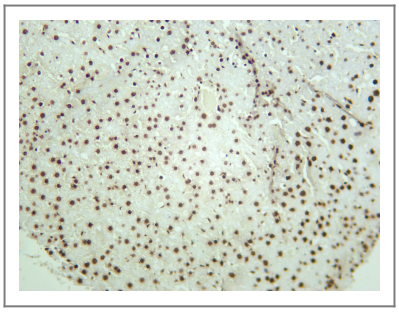
Human colon was stained with anti-Histone H2A (Ubiquityl Lys119) rabbit antibody



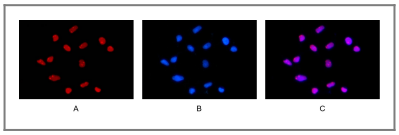
Human liver was stained with anti-Histone H2A (Ubiquityl Lys119) rabbit antibody



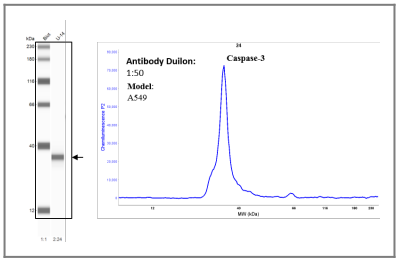
Mouse liver was stained with anti-Histone H2A (Ubiquityl Lys119) rabbit antibody



Rat liver was stained with anti-Histone H2A (Ubiquityl Lys119) rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: Histone H2A (Ubiquityl Lys119) (red). Picture B: DAPI (blue). Picture C: Merge of A+B



Simple Western analysis of lysates using primary Rabbit mAb. The virtual lane view (left) shows a single target band (as indicated) at 1:50 dilutions of primary antibody. The corresponding electropherogram view (right) plots chemiluminescence by molecular weight along the capillary at 1:50 of primary antibody. This experiment was performed under reducing conditions on the Jess Simple Westerninstrument from ProteinSimple, a BioTechne brand, using the 12-230 kDa separation module.

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Please scan the QR code to access additional product information:
Histone H2A (Ubiquityl Lys119) (PT0410R) PT™ Rabbit mAb

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