

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 1:400-1:2000**WB 1:1000-1:5000****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

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 [23468](#); [P0C0S8](#); [P04908](#); [P20671](#); [Q96KK5](#); [Q6FI13](#); [Q7L7L0](#);

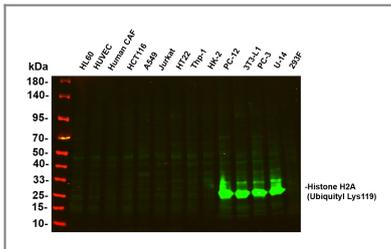
Mouse [319164](#); [P22752](#);

Cellular Localization Nucleus. Chromosome.

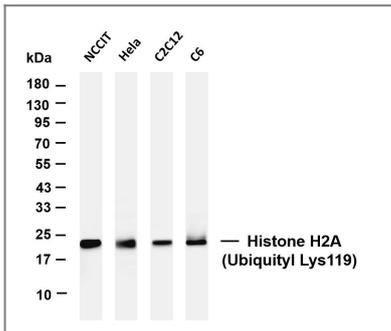
Tissue specificity Epithelium, Fetal brain cortex, Placenta,

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.,

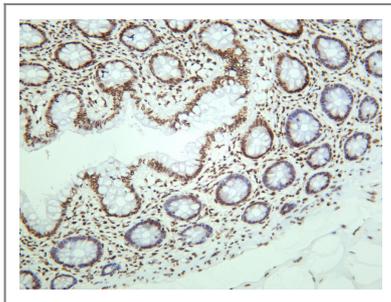
| Validation Data



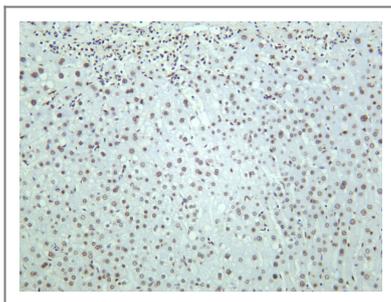
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody(Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - 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



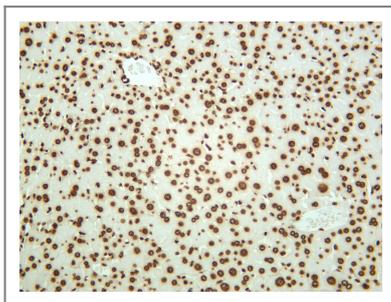
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Histone H2A (Ubiquityl Lys119) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: NCCIT Lane 2: HeLa Lane 3: C2C12 Lane 4: C6 Predicted band size: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



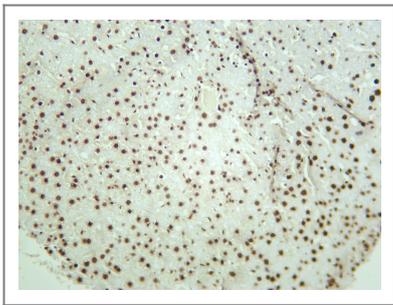
Human colon was stained with anti-Histone H2A (Ubiquityl Lys119) rabbit antibody



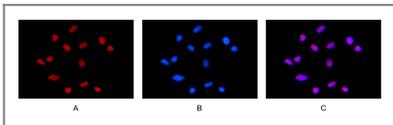
Human liver was stained with anti-Histone H2A (Ubiquityl Lys119) rabbit antibody



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

Contact information

Orders: order@immunoway.com
Support: tech@immunoway.com
Telephone: 877-594-3616 (Toll Free), 408-747-0185
Website: <http://www.immunoway.com>
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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

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