



# Histone H4 (Acetyl Lys16) Rabbit mAb

<b>Catalog No</b>	YP-rAb-18381
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human,Mouse,Rat
<b>Applications</b>	WB,IHC,IF,IP,ELISA,CHIP,Cut&Tag
<b>Gene Name</b>	HIST1H4A/HIST1H4B/HIST1H4C/HIST1H4D/HIST1H4E/HIST1H4F/HIST1H4H/ HIST1H4I/HIST1H4J/HIST1H4K/HIST1H4L/HIST2H4A/HIST2H4B/HIST4H4
<b>Protein Name</b>	Histone H4
<b>Purification Process</b>	Protein A
<b>Specificity</b>	Histone H4 (Acetyl Lys16) Monoclonal Antibody detects endogenous levels of Histone H4 protein only when acetylated at Lys16. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):GGaKR
<b>Formulation</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source</b>	Monoclonal, Rabbit,IgG
<b>Dilution</b>	IHC 1:200-1:1000; 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; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
<b>Concentration</b>	0.5 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-15° C to -25° C/1 year(Do not lower than -25° C)
<b>Synonyms</b>	HIST1H4A ; H4/A ; H4FA ; HIST1H4B ; H4/I ; H4FI ; HIST1H4C ; H4/G ; H4FG ; HIST1H4D ; H4/B ; H4FB ; HIST1H4E ; H4/J ; H4FJ ; HIST1H4F ; H4/C ; H4FC ; HIST1H4H ; H4/H ; H4FH ; HIST1H4I ; H4/M ; H4FM ; HIST1H4J ; H4/E ; H4FE ; HIST1H4K ; H4/D ; H4FD ; HIST1H4L ; H4/K ; H4FK ; HIST2H4A ; H4/N ; H4F2 ; H4FN ; HIST2H4 ; HIST2H4B ; H4/O ; H4FO ; HIST4H4 ; Histone H4 ; H4k16AC
<b>Observed Band</b>	11kD
<b>Calculated Molecular Weight</b>	11kD
<b>Cell Pathway</b>	Nucleus. Chromosome.
<b>Tissue Specificity</b>	B-cell lymphoma,Bone marrow,Brain,Clones donated by HIP,Corpus call





## 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. PTM:Acetylation at Lys-6, Lys-9, Lys-13 and Lys-17 occurs in coding regions of the genome but not in heterochromatin. PTM:Citrullination at Arg-4 by PADI4 impairs methylation. PTM:Monomethylated, dimethylated or trimethylated at Lys-21. Monomethylation is performed by SET8. Trimethylation is performed by SUV420H1 and SUV420H2 and induces gene silencing. PTM:Monomethylation at Arg-4 by PRMT1 favors acetylation at Lys-9 and Lys-13. Demethylation is performed by JMJD6. PTM:Sumoylated, which is associated with transcriptional repression. PTM:Ubiquitinated by the CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to repair proteins. similarity:Belongs to the histone H4 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.

## Background

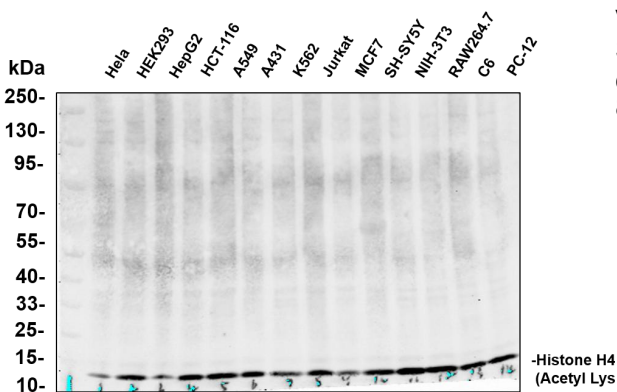
Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. 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 H4 family. Transcripts from this gene lack polyA tails but instead contain a palindromic termination element. This gene is found in the histone microcluster on chromosome 6p21.33. [provided by RefSeq, Aug 2015],

## matters needing attention

Avoid repeated freezing and thawing!

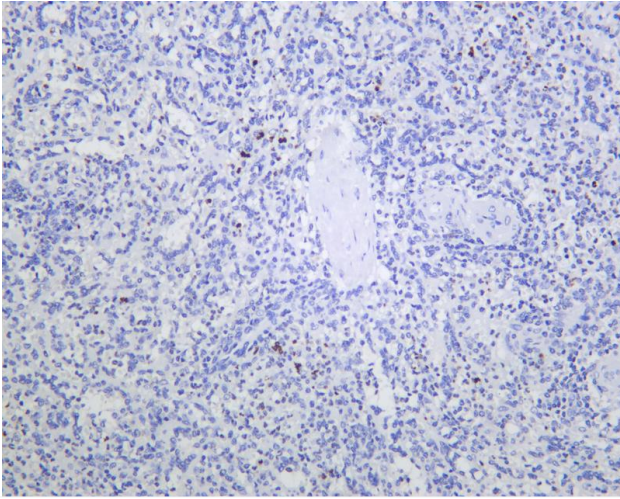
## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

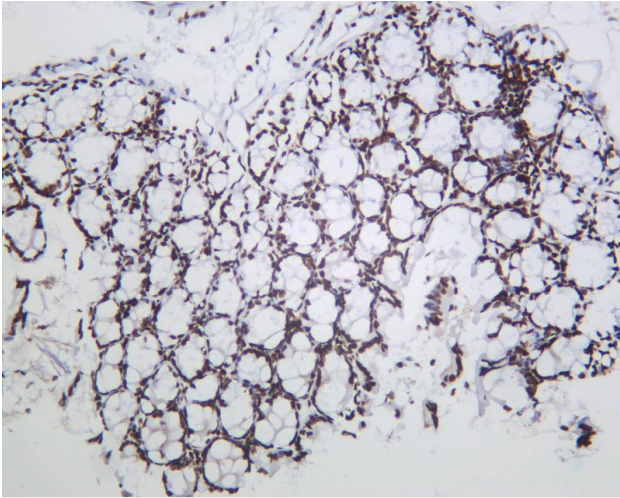


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:5000 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody

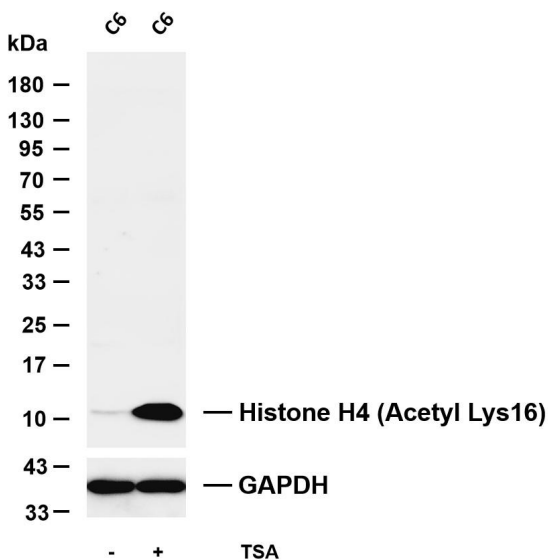




Human spleen was stained with anti-Histone H4 (Acetyl Lys16) Rabbit antibody

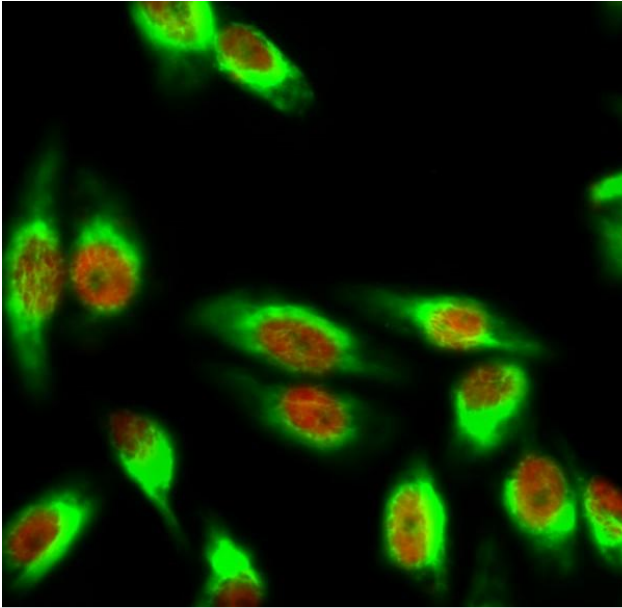


Mouse colon was stained with anti-Histone H4 (Acetyl Lys16) Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Histone H4 (Acetyl Lys16) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: C6 Lane 2: C6 was treated with TSA (500ng/mL) for 4 hours Predicted band size: 11kDa Observed band size: 11kDa





Immunofluorescence analysis of HeLa cell. 1, Histone H4 (Acetyl Lys16) Antibody(red) was diluted at 1:200(4° overnight).  $\alpha$ -tubulin Monoclonal Antibody(8F11)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).

