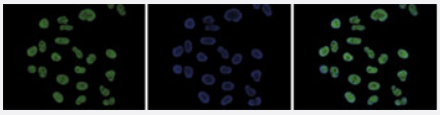
# Histone H3 (K18ac) polyclonal antibody

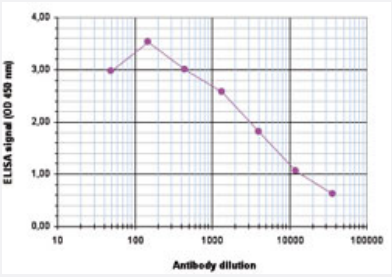
Catalog # PAB31314 Size 50 ug

## Applications



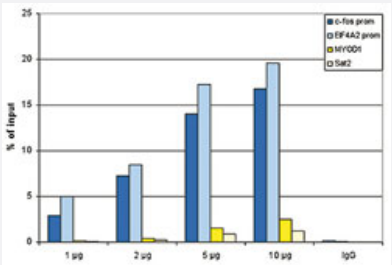
### Immunofluorescence

Immunofluorescent staining of Hela cell line with antibody followed by an anti-rabbit antibody conjugated to Alexa488 (left). The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings (right).




### Enzyme-linked Immunoabsorbent Assay

ELISA is a quantitative method used to determine the titer of the antibody using a serial dilution of antibody against Histone H3 (K18ac). The antigen used was a peptide containing the histone modification of interest. By plotting the absorbance against the antibody dilution, the titer of the antibody was estimated to be 1:4300.




### ChIP

ChIP assays were performed using human HeLa cells. A titration consisting of 1, 2, 5 and 10 ug of antibody per ChIP experiment was analyzed. IgG (2 ug/IP) was used as a negative IP control. Quantitative PCR was performed with primers for the promoters of the active EIF4A2 and c-fos genes, used as positive controls, and for the inactive MYOD1 gene and the Sat2 satellite repeat, used as negative controls. The figure shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

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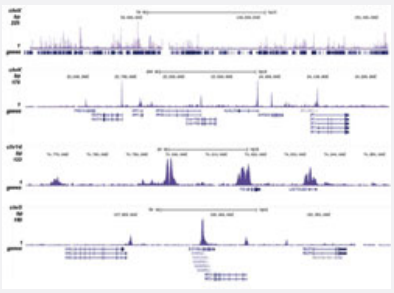
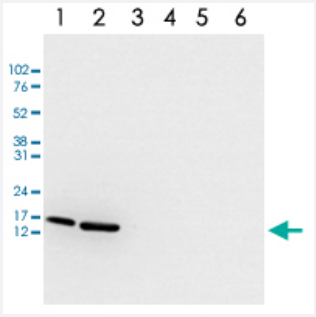


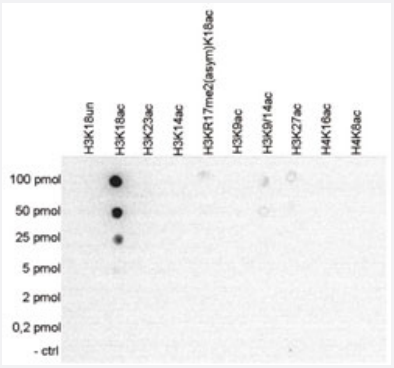
## ChIP-Seq

The figure shows the peak distribution along the complete human X-chromosome and a zoomin to a 600 kb region, and in two regions on chromosome 14 and 3 surrounding the c-fos and EIF4A2 positive control genes.




## Western Blot

Western Blot analysis of (1) 25 ug whole cell extracts of Hela cells, (2) 15 ug histone extracts of Hela cells, (3) 1 ug of recombinant histone H2A, (4) 1 ug of recombinant histone H2B, (5) 1 ug of recombinant histone H3, (6) 1 ug of recombinant histone H4.




## Dot Blot

Cross reactivity test using the Histone H3 (K18ac) antibody.
Dot Blot analysis was performed with peptides containing other histone modifications and the unmodified H3K18. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:5000. The figure shows a high specificity of the antibody for the modification of interest.

## Specification

| | |
|---|---|
| **Product Description** | Rabbit polyclonal antibody raised against synthetic peptide of Histone H3 (K18ac). |
| **Immunogen** | A synthetic peptide (conjugated with KLH) corresponding to Histone H3, acetylated at lysine 18. |
| **Host** | Rabbit |
| **Reactivity** | Human, Mouse |
| **Form** | Liquid |
| **Purification** | Affinity purification |

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| | |
|---|---|
| **Recommend Usage** | ELISA (1:100)<br>Western Blot (1:500)<br>ChIP (1 ug/IP)<br>Dot Blot (1:5000)<br>Immunofluorescence (1:200)<br>The optimal working dilution should be determined by the end user. |
| **Storage Buffer** | In PBS (0.05% sodium azide, 0.05% proclin 300). |
| **Storage Instruction** | Store at -20°C. For long term storage store at -80°C.<br>Aliquot to avoid repeated freezing and thawing. |
| **Note** | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only. |

## Applications

- ### Immunofluorescence

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## Gene Info — HIST1H3A

| | |
|---|---|
| **Entrez GeneID** | 8350 |
| **Protein Accession#** | P68431 |
| **Gene Name** | HIST1H3A |
| **Gene Alias** | H3/A, H3FA |
| **Gene Description** | histone cluster 1, H3a |
| **Omim ID** | 602810 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chro mosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrapped ar ound a nucleosome, an octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H 1, with the DNA between the nucleosomes to form higher order chromatin structures. This gene is intronless and encodes a member of the histone H3 family. Transcripts from this gene lack polyA t ails; instead, they contain a palindromic termination element. This gene is found in the large histon e gene cluster on chromosome 6p22-p21.3. [provided by RefSeq |
| **Other Designations** | H3 histone family, member A\|histone 1, H3a |

## Pathway

- Systemic lupus erythematosus

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