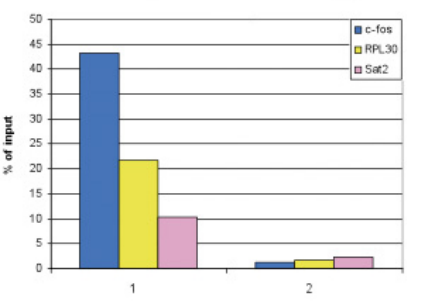
Histone H3 (phospho S10) polyclonal antibody

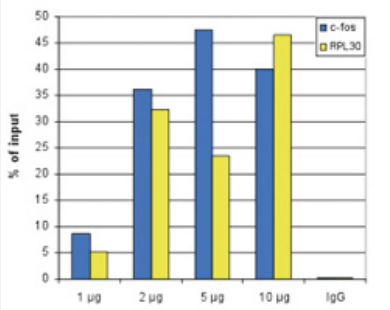
Catalog # PAB31273 Size 50 ug

Applications



ChIP

ChIP assays was performed using 2 ug of antibody and sheared chromatin from 10,000 HeLa cells treated with colcemid or from 10,000 untreated cells. QPCR was performed with primers for the promoter of the active genes c-fos and RPL30, and for the Sat2 satellite repeat region.



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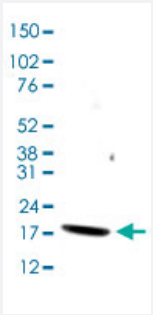
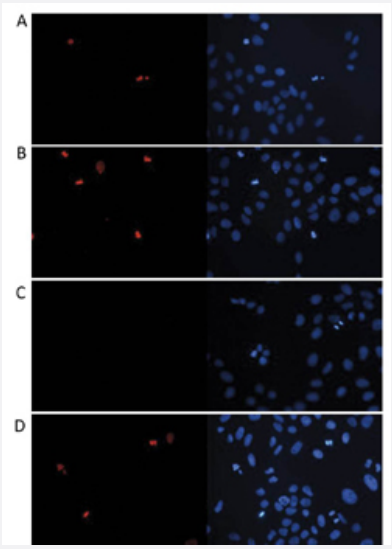
ChIP assays were performed using human HeLa cells. A titration of the antibody consisting of 1, 2, 5, and 10 ug per ChIP experiment was analysed. IgG (5 ug/IP) was used as negative IP control. QPCR was performed with primers for the promoter of the active genes c-fos and RPL30. The figure shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).



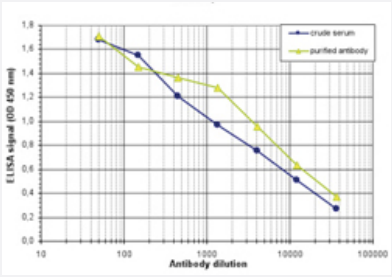
Western Blot (Cell lysate)

Western Blot (Cell lysate) analysis of 15 ug histone extracts of HeLa cells.



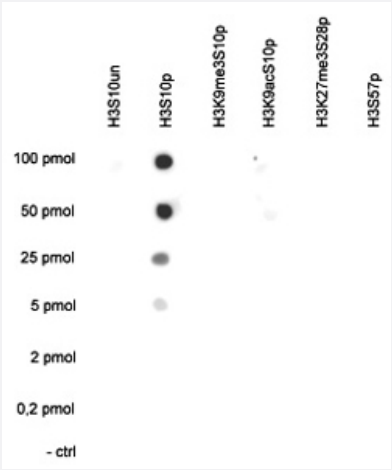
Immunofluorescence

Immunofluorescent staining of human osteosarcoma (U2OS) cell line (A) with antibody (left) and followed by an anti-rabbit antibody conjugated to Alexa568 or with DAPI (right). (B) on unmodified H3S10 sequence (left) and followed by an anti-rabbit antibody conjugated to Alexa568 or with DAPI (right). (C) on phosphorylated H3S10 sequence (left) and followed by an anti-rabbit antibody conjugated to Alexa568 or with DAPI (right). (D) on phosphorylated H3T11 sequence (left) and followed by an anti-rabbit antibody conjugated to Alexa568 or with DAPI (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 (phospho S10) and the crude serum. 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 1:5200.



Dot Blot

Cross reactivity test with the Histone H3 (phospho S10) antibody.
Dot Blot analysis was performed with peptides containing other modifications of histone H3 or the unmodified H3 (phospho S10) sequence. One hundred to 0.2 pmol of the peptide containing the respective histone modification were spotted on a membrane. The antibody was used at a dilution of 1:20000. The figure shows a high specificity of the antibody for the modification of interest. Note that the antibody does not recognize the Histone H3 (phospho S10) modification if the neighboring K9 is acetylated or trimethylated.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of Histone H3 (phospho S10).
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to human histone H3, phosphorylated at se rine 10.
Host	Rabbit

Reactivity	Human
Form	Liquid
Purification	Affinity purification
Recommend Usage	ELISA (1:100) Western Blot (1:1000) ChIP (2 ug/CHIP) Dot Blot (1:20000) Immunofluorescence (1:2000) 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. 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

- ChIP

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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

Publication Reference

- ERK-Induced Activation of TCF Family of SRF Cofactors Initiates a Chromatin Modification Cascade Associated with Transcription.

  Esnault C. et al.

  Molecular Cell 2017 Mar; 65(6):1081.

  Application: ChIP, Mouse, MEFs

Pathway

- Systemic lupus erythematosus