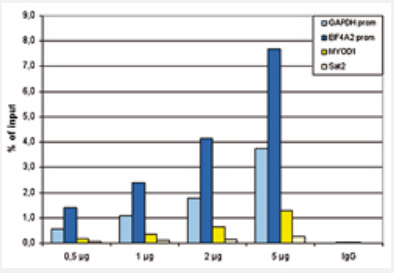
Histone H4 (K12ac) polyclonal antibody

Catalog # PAB31328 Size 50 ug

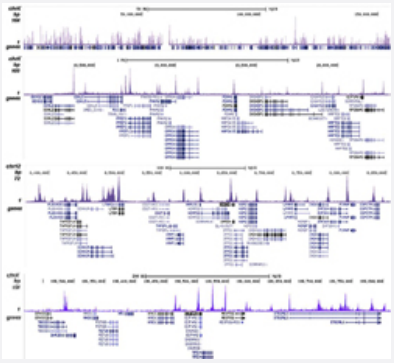
Applications

ChIP



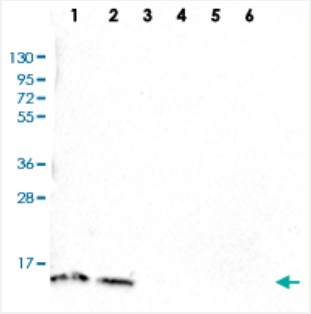
ChIP assays were performed using human HeLa cells. A titration of the antibody consisting of 0.5, 1, 2 and 5 ug per ChIP experiment was analysed. IgG (1 ug/IP) was used as negative IP control. QPCR was performed with primers for promoter of the active GAPDH and EIF4A2 genes, used as positive controls, and for the inactive MYOD1 gene and the Sat2 satellite repeat region 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).

ChIP-Seq



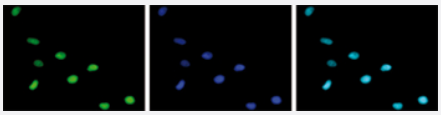
ChIP was performed on sheared chromatin from 1,000,000 HeLa cells. The figure shows the peak distribution along the complete sequence and a 2 Mb region of the human X chromosome and in two genomic regions surrounding the GAPDH and EIF4A2 positive control genes.

Western Blot



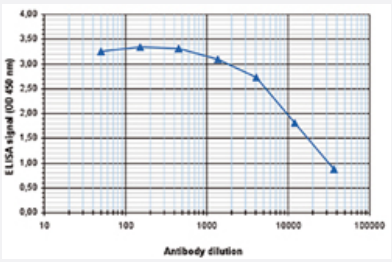
Western Blot analysis of (1) 25 ug whole cell extracts of Hela cells, (2) 15 ug histone extracts of Hela cells, (3) 1 ug of recombinant histone H2A, (4) 1 ug of recombinant histone H2B, (5) 1 ug of recombinant histone H3, (6) 1 ug of recombinant histone H4.

Immunofluorescence



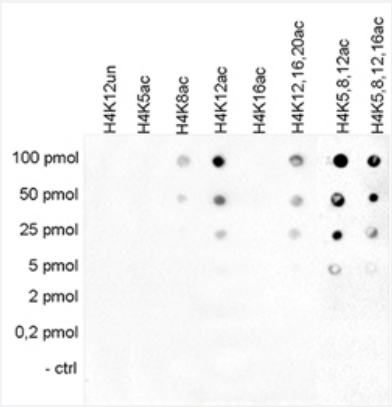
Immunofluorescent staining of Hela cell line with antibody followed by an anti-rabbit antibody conjugated to Alexa488 (left). The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings (right).

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 H4 (K12ac) in antigen coated wells. 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 1:14300.

Dot Blot



Cross reactivity test using the Histone H4 (K12ac) antibody.
Dot Blot analysis was performed with peptides containing other histone modifications and the unmodified H4. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:1000. The figure shows the antibody is specific for the K12 acetylation with some slight cross reaction with K8ac.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of Histone H4 (K12ac).
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to Histone H4, acetylated lysine at 12.
Host	Rabbit
Reactivity	Human, Mouse
Form	Liquid
Purification	Affinity purification

Recommend Usage	ELISA (1:1000) Western Blot (1:500) ChIP (0.5-1 ug/IP) Dot Blot (1:1000) Immunofluorescence (1:200) 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 — HIST1H4A

Entrez GeneID	8359
Protein Accession#	P62805
Gene Name	HIST1H4A
Gene Alias	H4/a, H4FA
Gene Description	histone cluster 1, H4a
Omim ID	602822
Gene Ontology	Hyperlink
Gene Summary	Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chro mosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, an d 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 f unctions in the compaction of chromatin into higher order structures. This gene is intronless and e ncodes 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 large histone gene cluster on chromosome 6. [provided by RefSeq
Other Designations	H4 histone family, member A|histone 1, H4a

Pathway

- Systemic lupus erythematosus