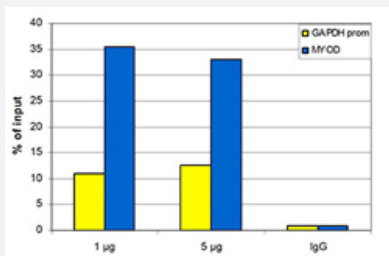


Histone H3 (K9me1) polyclonal antibody

Catalog # PAB31270

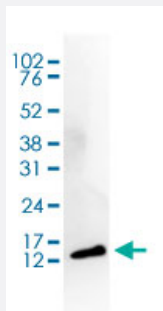
Size 50 ug

Applications



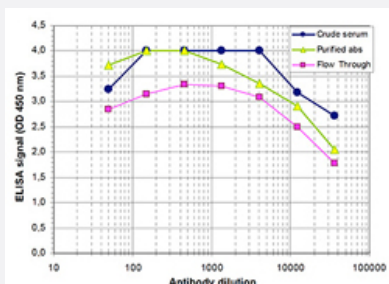
ChIP

ChIP assays were performed using human HeLa cells. 1 and 5 ug of the antibody and 5 ug of IgG (negative IP control) were used per ChIP experiment. QPCR was performed with primers for the GAPDH promoter and for the inactive gene MYOD. The figure shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis). These results are in accordance with the observation that H3K9me1 is preferably present at silent genes.



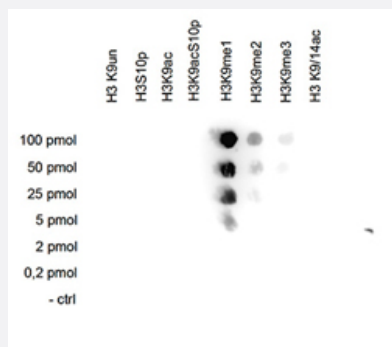
Western Blot (Cell lysate)

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



Enzyme-linked Immunoabsorbent Assay

ELISA is a quantitative method used to determine the titer of the antibody using a serial dilution of crude serum and flow through 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 1:68000.



Dot Blot

Cross reactivity test of the Histone H3 (K9me1) antibody.

Dot Blot analysis was performed with peptides containing other modifications and the unmodified sequence of histone H3. 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.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of Histone H3 (K9me1).
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to Histone H3, monomethylated at lysine 9.
Host	Rabbit
Reactivity	Human
Form	Liquid
Purification	Affinity purification
Recommend Usage	ELISA (1:500-1000) Western Blot (1:1000) ChIP (1 ug/CHIP) Dot Blot (1:20000) 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 should 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 chromosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrapped around 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, H1, 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 tails; instead, they contain a palindromic termination element. This gene is found in the large histone gene cluster on chromosome 6p22-p21.3. [provided by RefSeq]

Other Designations H3 histone family, member A|histone 1, H3a

Publication Reference

- [The histone demethylase JMJD2A/KDM4A links ribosomal RNA transcription to nutrients and growth factors availability.](#)

Salifou K, Ray S, Verrier L, Aguirrebengoa M, Trouche D, Panov KI, Vandromme M.

Nature Communications 2016 Jan; 7:10174.

Application: ChIP, Human, U-2 OS cells

- [Germline organization in Strongyloides nematodes reveals alternative differentiation and regulation mechanisms.](#)

Kulkarni A et al.

Chromosoma 2016 Sep; 125(4):725.

Application: IF, Nematoda, Worms

- [The histone demethylase enzyme KDM3A is a key estrogen receptor regulator in breast cancer.](#)

Wade MA, Jones D, Wilson L, Stockley J, Coffey K, Robson CN, Gaughan L.

Nucleic Acids Research 2015 Jan; 43(1):196.

Application: ChIP, Human, MCF-7 cells

Pathway

- [Systemic lupus erythematosus](#)