BioVision

08/14

For research use only

H3K79me1 Antibody

ALTERNATE NAMES: Histone H3

CATALOG #: 6811-50

AMOUNT: 50 µl

HOST/ISOTYPE: Rabbit

IMMUNOGEN: KLH-conjugated synthetic peptide of Histone H3 containing monomethylated lysine 79.

FORM: Liquid

FORMULATION: In PBS with 0.05% (W/V) sodium azide.

PURIFICATION: Whole antiserum from rabbit

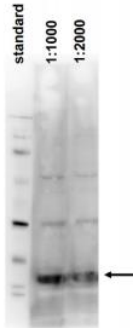
SPECIES REACTIVITY: Human.

STORAGE CONDITIONS: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

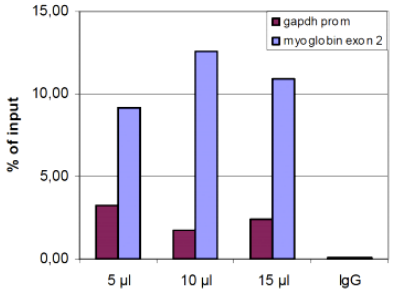
DESCRIPTION: Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, H3 and H4 assemble and are wrapped by 146 base pairs of DNA to form one octameric nucleosome. Histone tails undergo numerous post-translational modifications, which either directly or indirectly alter chromatin structure to facilitate transcriptional activation or repression or other nuclear processes. In addition to the genetic code, combinations of the different histone modifications reveal the so-called "histone code". Histone methylation and demethylation is dynamically regulated by respectively histone methyl transferases and histone demethylases.

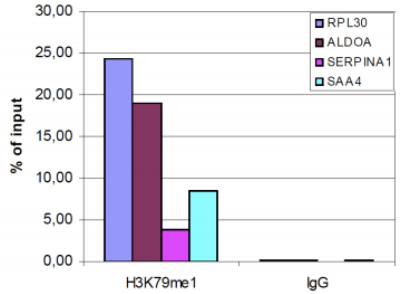
APPLICATION: WB: 1:1000, ELISA: 1:500 – 1:1000, Dot Blot: 1:100,000, ChIP: 5-10 µl/ChIP.

Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.

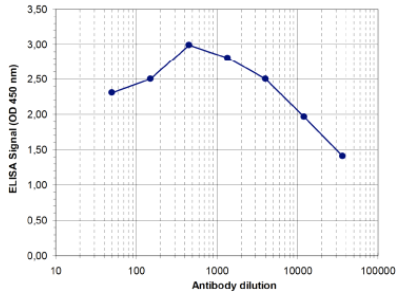


HeLa cells extracts (15 µg) were analysed by WB blot using the antibody.

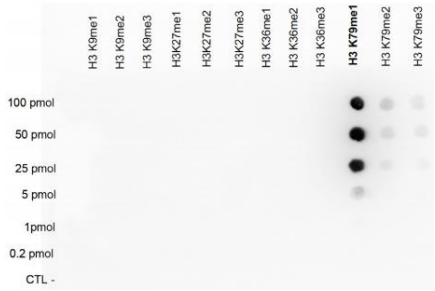




ChIP assays were performed using HeLa cells, and optimized PCR primer pairs for qPCR. IgG (5 µg/IP) was used as a negative IP control. The IP'd DNA was analysed by qPCR using primers for different positive and negative loci. The results are expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis). Fig 1: recovery of the GAPDH promoter and myoglobin exon 2 with a titration of the H3K79me1 antibody consisting of 5, 10 and 15 µl per ChIP experiment. Fig 2: recovery of RPL30, ALDOA, SERPINA1 and SAA4 using 10 µl of antibody per ChIP experiment.



To determine the titer, an ELISA was performed using a serial dilution of the antibody. 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 1:30000.



A Dot Blot analysis was performed to test the cross reactivity of the antibody with peptides containing other modifications of H3 sequences. These include di- and trimethylation of the same lysine and mono-, di- and trimethylation of lysine 9, 27 and 36. 100 to 0.2 pmol of the peptide containing the respective histone modification were spotted on a membrane. The Fig shows a high specificity of the antibody for the modification of interest.

RELATED PRODUCTS:

- H3R17me2 Antibody **(Cat # 6803-50)**
- H3K9me2 Antibody **(Cat # 6804-50)**
- H3K36me2 Antibody **(Cat # 6805-50)**
- H3 Pan Antibody **(Cat # 6806-50)**
- H4K8ac Antibody **(Cat # 6807-50)**

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