BioVision

09/14

For research use only

H3K9me3 Antibody

ALTERNATE NAMES: Histone H3

CATALOG #: 6873-25

AMOUNT: 25 µg

HOST/ISOTYPE: Rabbit

IMMUNOGEN: Polyclonal antibody raised in rabbit against the region of histone H3 containing the trimethylated lysine 9 (H3K9me3), using a KLH-conjugated synthetic peptide.

FORM: Liquid

FORMULATION: In PBS with 0.05% (W/V) sodium azide and 0.05% ProClin 300.

PURIFICATION: Affinity purified

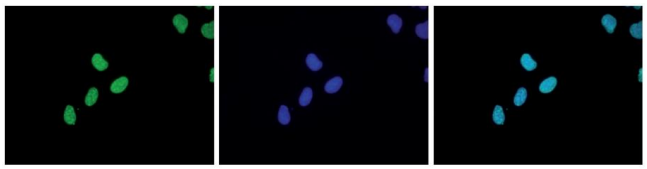
SPECIES REACTIVITY: Human.

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

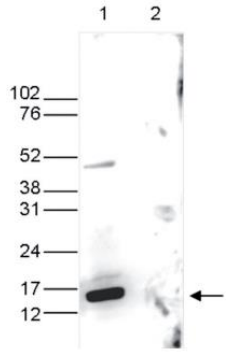
DESCRIPTION: Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, 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. Trimethylation of histone H3K9 is associated with satellite repeat regions and ZNF repeat genes.

APPLICATION: WB: 1:1000, Dot Blot: 1:20,000, ChIP: 1 µl/ChIP, IF: 1:500, ELISA: 1:1000.

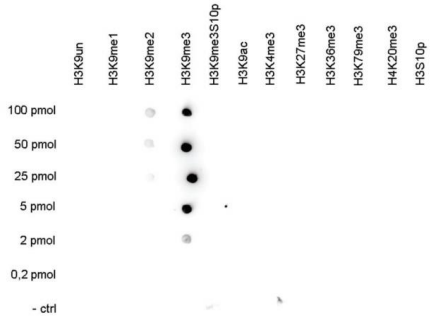
Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



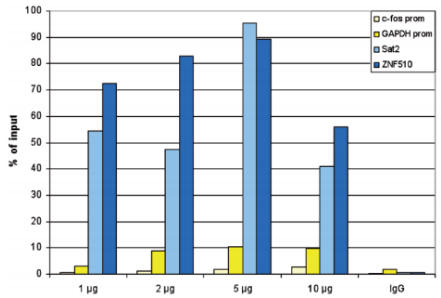
NIH3T3 cells were stained with the antibody and with DAPI. The cells were immunofluorescently labelled with the antibody (left) followed by an anti-rabbit antibody conjugated to Alexa488. The middle panel shows staining of the nuclei with DAPI. A merge of



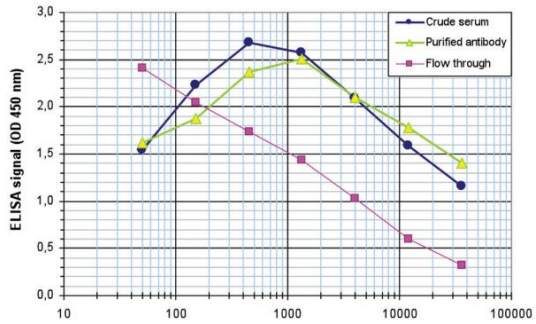
Western blot was performed on histone extracts from HeLa cells (15 µg). The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.



A Dot Blot analysis was performed to test the cross reactivity of the antibody with peptides containing other modifications and unmodified H3 and H4. 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.



ChIP assays were performed using HeLa cells and the antibody and optimized PCR primer sets for qPCR. A titration of the antibody consisting of 1, 2, 5, and 10 µl per ChIP experiment was analysed. IgG (2 µg/IP) was used as negative control. The Fig shows the recovery, expressed as a % of input (the relative amount of IP DNA compared to input DNA after qPCR analysis).



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 1:60000.

RELATED PRODUCTS:

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

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