BioVision

08/14

For research use only

H3K27me1 Antibody

ALTERNATE NAMES: Histone H3

CATALOG #: 6815-25

AMOUNT: 25 µg

HOST/ISOTYPE: Rabbit

IMMUNOGEN: KLH-conjugated synthetic peptide of Histone H3 containing monomethylated lysine 27.

FORM: Liquid

FORMULATION: In PBS with 0.05% sodium azide and 0.05% ProClin 300.

PURIFICATION: Affinity purified.

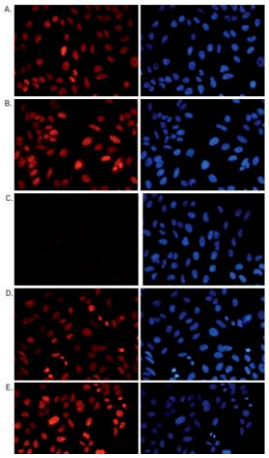
SPECIES REACTIVITY: Human.

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

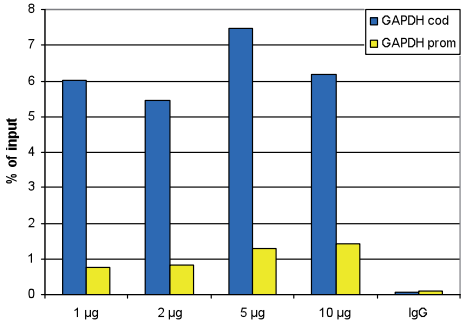
DESCRIPTION: Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, 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.

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

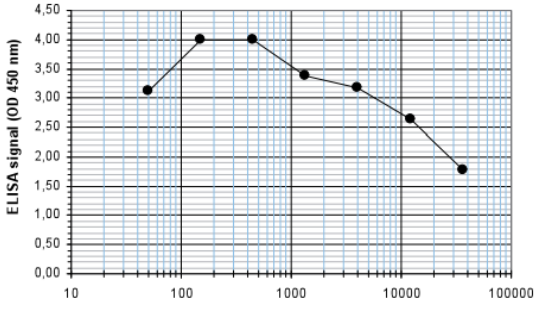
Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



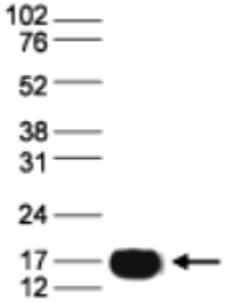
U2OS cells were stained with the antibody and with DAPI. A) The cells were labeled with the antibody followed by an anti-rabbit antibody conjugated to Alexa 568 (left) or DAPI (right). Fig. B, C, D and E are staining of the cells with the antibody with 2 ng/µl blocking peptide containing unmodified and the mono, di and trimethylated H3K27 respectively.



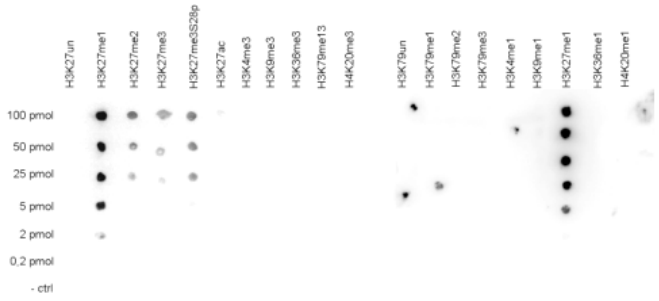
ChIP assays were performed using HeLa cells and the antibody and optimized PCR primer sets for qPCR. A titration of the antibody consisting of 1, 2, 5, and 10 µl per ChIP experiment was analysed. IgG (5 µg/IP) was used as negative control. The Fig shows the recovery, expressed as a % of input (the relative 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 1:103,000.



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



A Dot Blot analysis was performed to test the cross reactivity of the antibody with peptides containing other modifications of histone H3 and the unmodified H4 sequence. 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)**
- H3K9me1 Antibody **(Cat # 6804-50)**
- H3K36me2 Antibody **(Cat # 6805-50)**
- H3 Pan Antibody **(Cat # 6806-50)**
- H4K8ac Antibody **(Cat # 6807-50)**

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