BioVision

08/14

For research use only

H3K36me2 Antibody

ALTERNATE NAMES: Histone H3

CATALOG #: 6805-50

AMOUNT: 50 µl

HOST/ISOTYPE: Rabbit

IMMUNOGEN: KLH-conjugated synthetic peptide of Histone H3 containing dimethylated lysine 36.

FORM: Liquid

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

PURIFICATION: Whole antiserum from rabbit

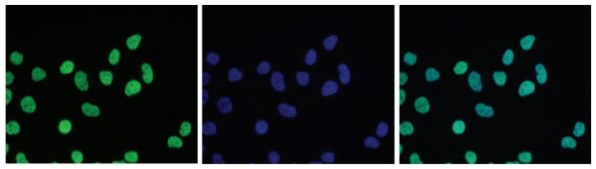
SPECIES REACTIVITY: Human.

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

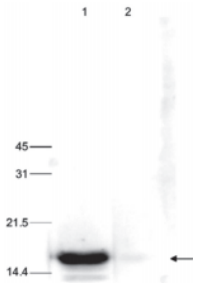
DESCRIPTION: Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Histone tails undergo numerous post-translational 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: IF: 1:500, WB: 1:1000, ELISA: 1:1000, Dot Blot: 1:100,000, ChIP: 0.5 - 1 µl/ChIP.

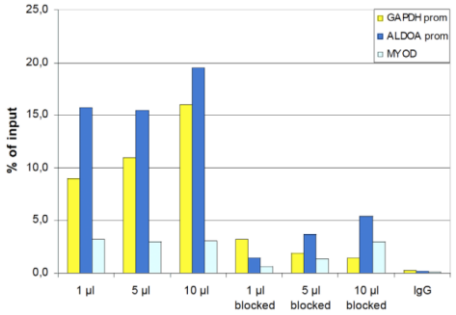
Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



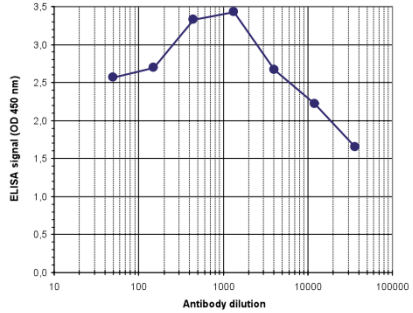
HeLa cells were stained with the antibody and with DAPI. The cells were immunofluorescently labelled with the antibody (left) followed by an anti-rabbit antibody conjugated to Alexa488. The middle panel shows staining of the nuclei with



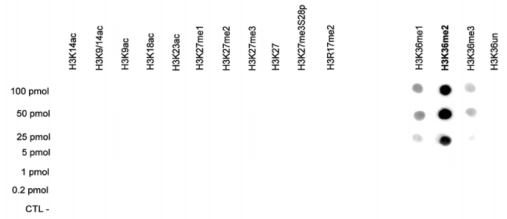
HeLa cells (15 µg) were analysed by WB blot using the H3K36me2 antibody (1) and blocking peptide (2).



ChIP assays were performed using human osteosarcoma (U2OS) cells and the antibody and optimized PCR primer sets for qPCR. A titration of the antibody consisting of 2, 5, 10 and 15 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). QPCR was performed with primers for the promoter of the active genes GAPDH and ALDOA and for the coding region of the myogenic differentiation gene (MYOD).



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 1:31,000.



A Dot Blot analysis was performed to test the cross reactivity of the antibody with peptides containing other modifications of histone H3 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)**
- H3 Pan Antibody **(Cat # 6806-50)**
- H4K8ac Antibody **(Cat # 6807-50)**

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