

H3K36me2 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11341**Specification**

H3K36me2 Antibody - Product Information

Application	CHIP, DB, E, WB
Primary Accession	P68431
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	15404

H3K36me2 Antibody - Additional Information**Gene ID** 8350;8351;8352;8353;8354;8355;8356;8357;8358;8968

Positive Control	IF: HeLa cells, WB: HeLa cells, ELISA: Antigen, ChIP: Human osteosarcoma cells, Dot blot: Histone peptides
Application & Usage	IF: 1:500, WB: 1:1000, ELISA: 1:1000, Dot Blot: 1:100,000, ChIP: 0.5 - 1 µl/ChIP.

Other Names
Histone H3**Target/Specificity**
H3K36me2**Antibody Form**
Liquid**Appearance**
Colorless liquid**Formulation**
In PBS with 0.05% (W/V) sodium azide.**Handling**
The antibody solution should be gently mixed before use.**Reconstitution & Storage**
-20 °C**Background Descriptions****Precautions**
H3K36me2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

H3K36me2 Antibody - Protein Information

Name H3C1 ([HGNC:4766](#))

Synonyms H3FA, HIST1H3A

Function

Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling.

Cellular Location

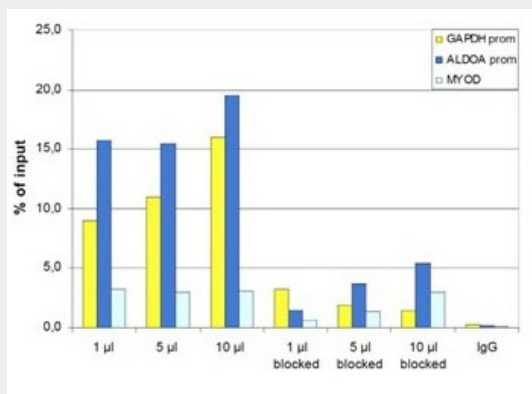
Nucleus. Chromosome.

H3K36me2 Antibody - Protocols

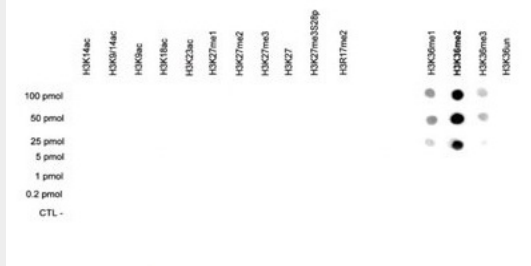
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

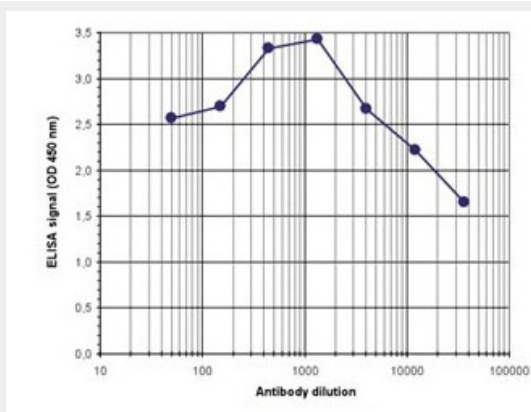
H3K36me2 Antibody - Images



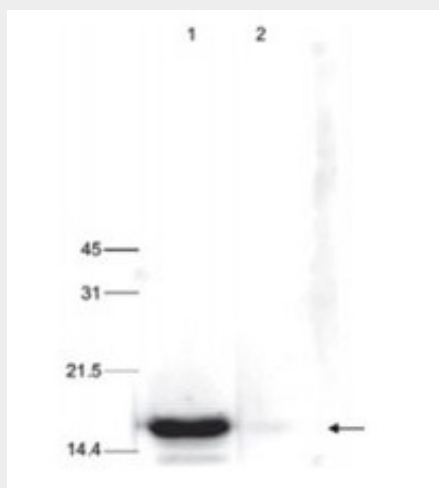
ChIP assays were performed using human osteosarcoma (U2OS) cells and the antibody and optimized PCR primer sets for qPCR. A titration of the antibody consisting of 2, 5, 10 and 15 µl per ChIP experiment was analysed. IgG (5 µg/IP) was used as negative control. The Fig shows the recovery, expressed as 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).



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.



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.



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

H3K36me2 Antibody - Background

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.