

Product Datasheet

Histone H3 [Dimethyl Lys4] Antibody NBP2-59187

Unit Size: 50 ug

Store at -20C. Avoid freeze-thaw cycles.

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NBP2-59187**Histone H3 [Dimethyl Lys4] Antibody**

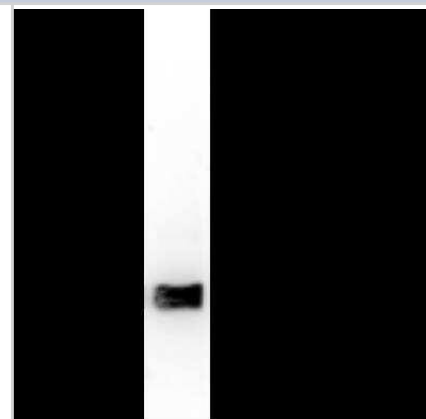
Product Information	
Unit Size	50 ug
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide and 0.05% ProClin 300
Isotype	IgG
Purity	Peptide affinity purified
Buffer	PBS
Target Molecular Weight	15 kDa

Product Description	
Host	Rabbit
Gene ID	126961
Gene Symbol	H3C14
Species	Human
Immunogen	The exact sequence of the immunogen to this Histone H3 [Dimethyl Lys4] antibody is proprietary.

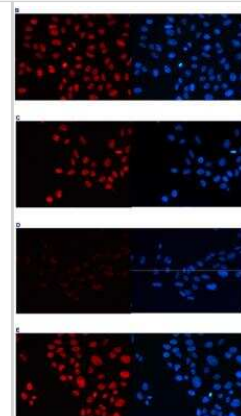
Product Application Details	
Applications	Western Blot, Dot Blot, ELISA, Immunocytochemistry/Immunofluorescence, Chromatin Immunoprecipitation (ChIP), Chromatin Immunoprecipitation Sequencing
Recommended Dilutions	Western Blot 1:1000, ELISA 1:500, Immunocytochemistry/Immunofluorescence, Dot Blot 1:20000, Chromatin Immunoprecipitation (ChIP) 0.5-5 ug, Chromatin Immunoprecipitation Sequencing

Images

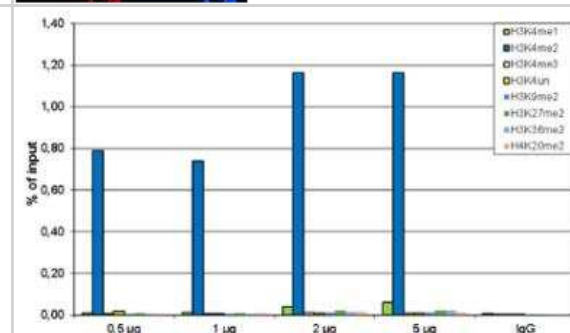
Western Blot: Histone H3 [Dimethyl Lys4] Antibody [NBP2-59187] - Histone extracts of HeLa cells (15 ug) were analysed by Western blot using the antibody against H3K4me2 diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. Theoretical molecular weight is ~15 kDa.



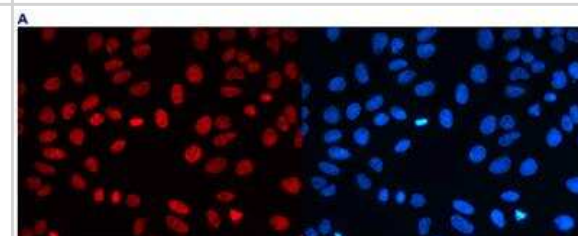
Immunocytochemistry/Immunofluorescence: Histone H3 [Dimethyl Lys4] Antibody [NBP2-59187] - Panel B, C, D and E: staining of the cells with the H3K4me2 antibody after incubation of the antibody with 5 ng/uL blocking peptide containing the unmodified and the mono-, di- and trimethylated H3K4, respectively.



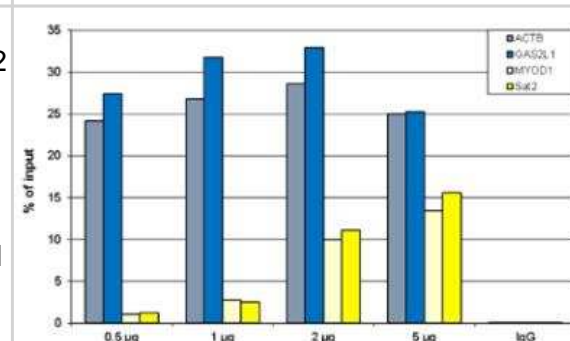
Chromatin Immunoprecipitation: Histone H3 [Dimethyl Lys4] Antibody [NBP2-59187] - Recovery of the nucleosomes carrying the H3K4me1, H3K4me2, H3K4me3, H3K9me2, H3K27me2, H3K36me2, H4K20me2 and the unmodified H3K4 as determined by qPCR. The figure clearly shows the antibody is very specific in ChIP for the H3K4me2 modification.



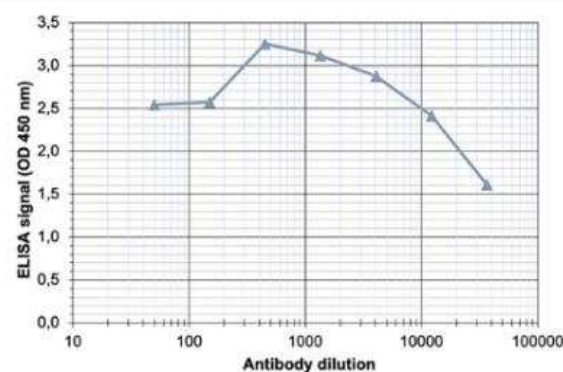
Immunocytochemistry/Immunofluorescence: Histone H3 [Dimethyl Lys4] Antibody [NBP2-59187] - Human osteosarcoma (U2OS) cells were stained with the antibody against H3K4me2 and with DAPI. Cells were fixed with 4% formaldehyde for 20 minutes and blocked with PBS/TX-100 containing 5% normal goat serum. A: cells were immunofluorescently labeled with the H3K4me2 antibody (left) diluted 1:5,000 in blocking solution followed by an anti-rabbit antibody conjugated to Alexa Fluor 568 or with DAPI (right), which specifically labels DNA.



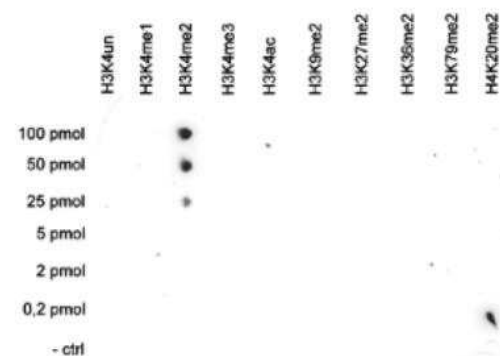
Chromatin Immunoprecipitation: Histone H3 [Dimethyl Lys4] Antibody [NBP2-59187] - ChIP was performed with the antibody against H3K4me2 on sheared chromatin from 500,000 HeLaS3 cells. The chromatin was spiked with a panel of in vitro assembled nucleosomes, each containing a specific lysine methylation (SNAP-ChIP K-MetStat Panel, Epicypher). A titration of the antibody of 0.5, 1, 2 and 5 ug per ChIP experiment was analysed. IgG (2 ug/IP) was used as negative IP control. Quantitative PCR was performed with primers for a region upstream of the ACTB and GAS2L1 promoters, used as positive controls, and for the MYOD1 gene and the Sat2 satellite repeat, used as negative controls. The graph shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).



ELISA: Histone H3 [Dimethyl Lys4] Antibody [NBP2-59187] - To determine the titer, an ELISA was performed using a serial dilution of the antibody directed against H3K4me2 in antigen coated wells. 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 1:48,200.



Dot Blot: Histone H3 [Dimethyl Lys4] Antibody [NBP2-59187] - A Dot Blot analysis was performed to test the cross reactivity of the antibody against H3K4me2 with peptides containing other modifications of histone H3 and H4 and the unmodified H3K4 sequence. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:20,000. Figure shows a high specificity of the antibody for the modification of interest.





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Products Related to NBP2-59187

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NB21-1023PEP	Histone H3 [Trimethyl Lys4] Antibody Blocking Peptide

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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