Product Datasheet

Histone H3 [ac Lys9, ac Lys14] Antibody
NBP2-54617

Unit Size: 50 ug

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

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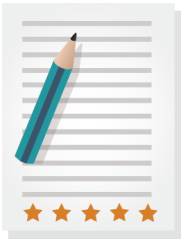
Updated 8/8/2023 v.20.1



NBP2-54617

Histone H3 [ac Lys9, ac Lys14] Antibody

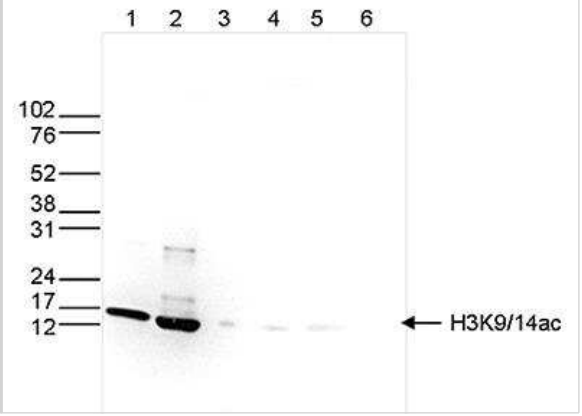
Product Information	
Unit Size	50 ug
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide and 0.05% ProClin 300
Isotype	IgG
Purity	Affinity purified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

Product Description	
Host	Rabbit
Gene ID	126961
Gene Symbol	H3C14
Species	Human, Mouse, A. thaliana, Zebrafish
Immunogen	This Histone H3 [Trimethyl Lys4] antibody was developed against H3K4Me3

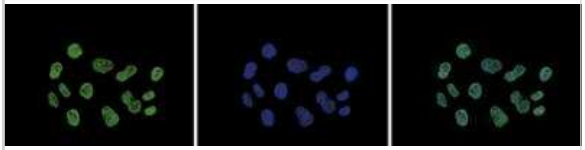
Product Application Details	
Applications	Western Blot, Dot Blot, ELISA, Immunocytochemistry/Immunofluorescence, Protein Array, Chromatin Immunoprecipitation (ChIP), Chromatin Immunoprecipitation Sequencing
Recommended Dilutions	Western Blot 1:1000, ELISA 1:100, Immunocytochemistry/Immunofluorescence 1:500, Dot Blot 1:20000, Protein Array 1:20000, Chromatin Immunoprecipitation (ChIP) 1-2 ug/IP, Chromatin Immunoprecipitation Sequencing

Images

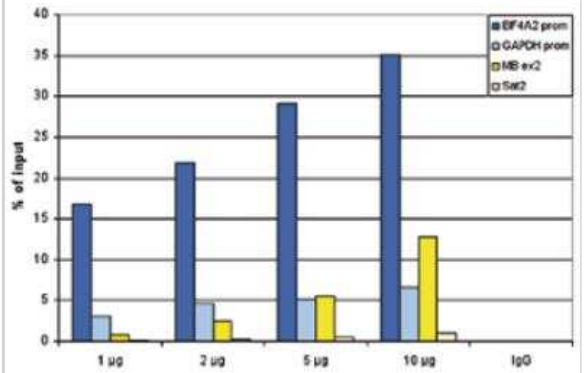
Western Blot: Histone H3 [ac Lys9, ac Lys14] Antibody [NBP2-54617] - Western blot was performed on whole cell (25 ug, lane 1) and histone extracts (15 ug, lane 2) from HeLa cells, and on 1 ug of recombinant histone H2A, H2B, H3 and H4 (lane 3, 4, 5 and 6, respectively) using the antibody against H3K9/14ac. The antibody was diluted 1:500 in TBS-Tween containing 5% skimmed milk. Observed molecular weight is ~16 kDa.



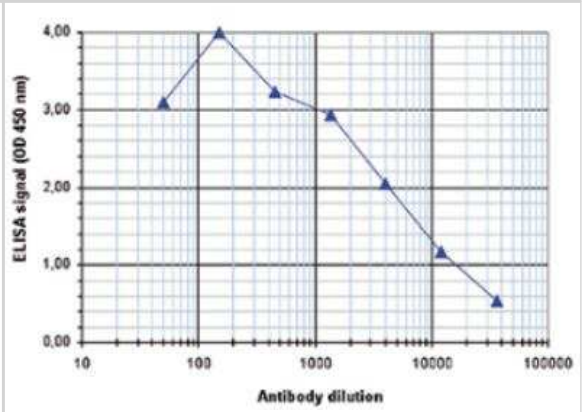
Immunocytochemistry/Immunofluorescence: Histone H3 [ac Lys9, ac Lys14] Antibody [NBP2-54617] - HeLa cells were stained with the antibody against H3K9/14ac and with DAPI. Cells were fixed with 4% formaldehyde for 10' and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labeled with the H3K9/14ac antibody (left) diluted 1:200 in blocking solution followed by an anti-rabbit antibody conjugated to Alexa488. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown on the right.



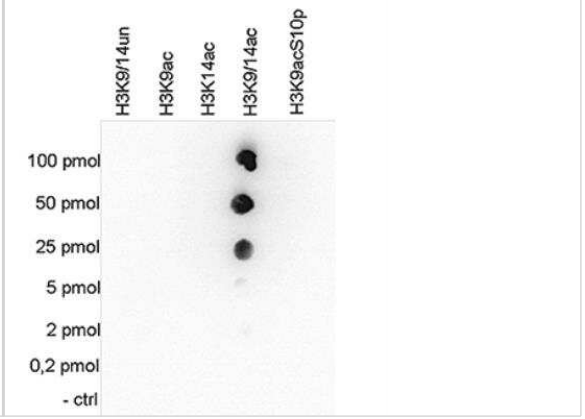
Chromatin Immunoprecipitation: Histone H3 [ac Lys9, ac Lys14] Antibody [NBP2-54617] - ChIP assays were performed using human HeLa cells, the antibody against H3K9/14ac and optimized PCR primer pairs for qPCR. ChIP was performed using sheared chromatin from 1,000,000 cells. A titration consisting of 1, 2, 5 and 10 ug of antibody per ChIP experiment was analyzed. IgG (2 ug/IP) was used as a negative IP control. Quantitative PCR was performed with primers specific for the promoter of the active genes GAPDH and EIF4A2, used as positive controls, and for the coding region of the inactive MB gene and the Sat2 satellite repeat, used as negative controls. Figure shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).



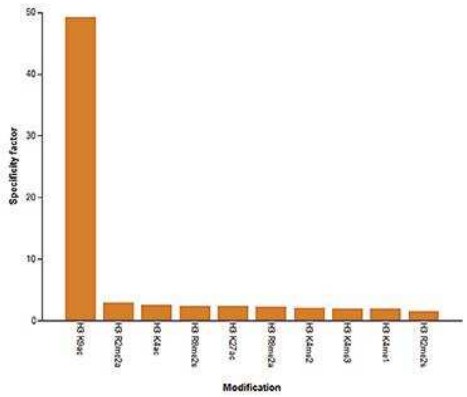
ELISA: Histone H3 [ac Lys9, ac Lys14] Antibody [NBP2-54617] - To determine the titer of the antibody, an ELISA was performed using a serial dilution of the antibody against H3K9/14ac. The antigen used was a peptide containing the histone modification of interest. By plotting the absorbance against the antibody dilution, the titer of the antibody was estimated to be 1:4,000.



Dot Blot: Histone H3 [ac Lys9, ac Lys14] Antibody [NBP2-54617] - To test the cross reactivity of the antibody against H3K9/14ac, a Dot Blot analysis was performed with peptides containing other histone modifications and the unmodified H3K9. 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.



Protein Array: Histone H3 [ac Lys9, ac Lys14] Antibody [NBP2-54617] - The specificity of the antibody was further demonstrated by peptide array analyses on an array containing 384 peptides with different combinations of modifications from histone H3, H4, H2A and H2B. The antibody was used at a dilution of 1:2,000. Figure shows the specificity factor, calculated as the ratio of the average intensity of all spots containing the mark, divided by the average intensity of all spots not containing the mark.



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NBP2-24891	Rabbit IgG Isotype Control
NB21-1101PEP	Histone H3 [p Thr11] Antibody Blocking Peptide

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