

Product Datasheet

Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody - BSA Free NBP3-18689

Unit Size: 50 ug

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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NBP3-18689

Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody - BSA Free

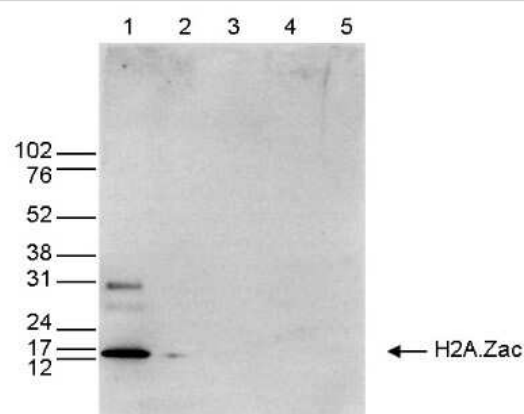
Product Information	
Unit Size	50 ug
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide and 0.05% ProClin 300
Purity	Affinity purified
Buffer	PBS

Product Description	
Description	Novus Biologicals Rabbit Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody - BSA Free (NBP3-18689) is a polyclonal antibody validated for use in WB, ELISA, ICC/IF and ChIP. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	3015
Gene Symbol	H2AZ1
Species	Human
Immunogen	Polyclonal antibody raised in rabbit against Histone H2A.Z acetylated at lysines 4, 7 and 11, using a KLHconjugated synthetic peptide.

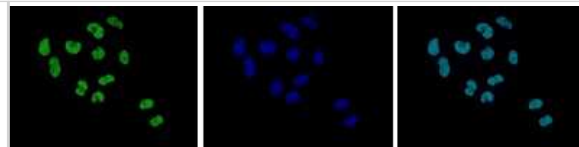
Product Application Details	
Applications	Western Blot, Dot Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Chromatin Immunoprecipitation (ChIP), Chromatin Immunoprecipitation Sequencing
Recommended Dilutions	Western Blot 1:1000, ELISA 1:5000, Immunocytochemistry/ Immunofluorescence 1:500, Dot Blot 1:20000, Chromatin Immunoprecipitation (ChIP) 0.5 ug/ChIP, Chromatin Immunoprecipitation Sequencing 0.5 ug/ChIP
Application Notes	Please note that the optimal antibody amount per IP should be determined by the end-user. We recommend testing 0.5-5 ug per IP.

Images

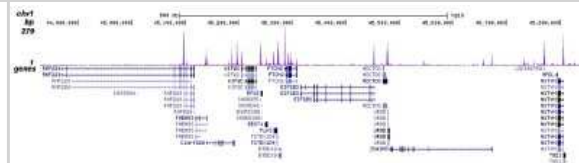
Western Blot: Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody [NBP3-18689] - Figure 5. Western blot analysis using the antibody directed against Histone H2A.Z Western blot was performed on whole cell extracts (25 ug, lane 1) from HeLa cells, and on 1 ug of recombinant histone H2A, H2B, H3 and H4 (lane 2, 3, 4 and 5, respectively) using the antibody against Histone H2A.Z. The antibody was diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right, the marker (in kDa) is shown on the left.



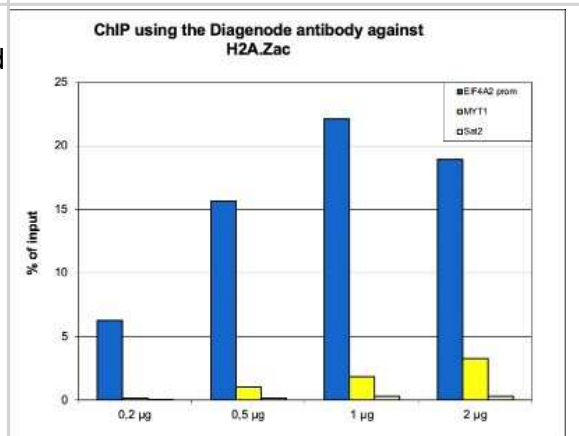
Immunocytochemistry/Immunofluorescence: Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody [NBP3-18689] - Figure 6. Immunofluorescence using the antibody directed against Histone H2A.Z HeLa cells were stained with the antibody against Histone H2A.Z and with DAPI. Cells were fixed with 4% formaldehyde for 10 and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labelled with the Histone H2A.Z antibody (left) diluted 1:500 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.



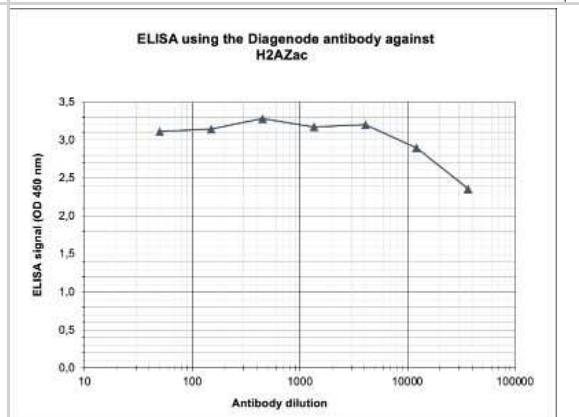
Chromatin Immunoprecipitation Sequencing: Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody [NBP3-18689] - Figure 2. ChIP-seq results obtained with the antibody directed against Histone H2A.Z ChIP was performed with 0.5 ug of the antibody against Histone H2A.Z as described above. The IP'd DNA was subsequently analysed with an Illumina Genome Analyzer. Library preparation, cluster generation and sequencing were performed according to the manufacturer's instructions. The 36 bp tags were aligned to the human genome using the ELAND algorithm. Figure 2 shows the peak distribution along the complete sequence and a 1 Mb region of human chromosome 1 (figure 2A and B) and in two regions surrounding the GAPDH and the EIF4A2 positive control gene (figure 2C and D, respectively).



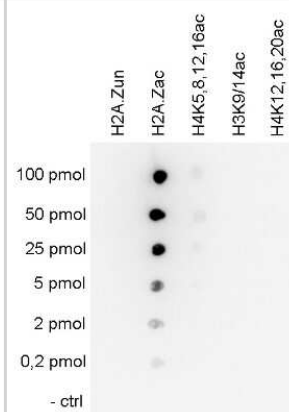
Chromatin Immunoprecipitation Sequencing: Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody [NBP3-18689] - Figure 1. ChIP results obtained with the antibody directed against Histone H2A.Z ChIP assays were performed using HeLa cells, the antibody against Histone H2A.Z and optimized primer pairs for qPCR. ChIP was performed on sheared chromatin from 100,000 K562 cells using the iDeal ChIP-seq kit. A titration of the antibody consisting of 0.2, 0.5, 1 and 2 ug per ChIP experiment was analysed. IgG (1 ug/IP) was used as negative IP control. QPCR was performed using primers specific for the promoter of the EIF4A2 gene, used as positive control target and for the coding region of the MYT1 gene, and the Sat2 satellite repeat, used as negative control targets. Figure 1 shows the recovery (the relative amount of immunoprecipitated DNA compared to input DNA).



ELISA: Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody [NBP3-18689] - Figure 3. Determination of the antibody titer To determine the titer of the antibody, an ELISA was performed using a serial dilution of the antibody directed against Histone H2A.Z. The antigen used was a peptide containing the histone modifications of interest. By plotting the absorbance against the antibody dilution (Figure 3), the titer of the purified antibody was estimated to be 1:265,000.



Dot Blot: Histone H2A.Z [ac Lys7, ac Lys11, ac Lys4] Antibody [NBP3-18689] - Figure 4. Cross reactivity test using the antibody directed against Histone H2A.Z A Dot Blot analysis was performed to test the cross reactivity of the antibody against Histone H2A.Z with peptides containing other histone acetylations and the unmodified H2A.Z 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 4 shows a high specificity of the antibody for the modification of interest.





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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-51625-0.05mg	Recombinant Human Histone H2A.Z His Protein

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