

Histone H3K9ac antibody (mAb)

Catalog Nos: 61251, 61952, 61252

RRID: AB_2793569

Clone: 1B10

Isotype: IgG3

Application(s): ChIP, ChIP-Seq, DB, ICC, IF, WB

Reactivity: Human, Mouse, Wide Range Predicted

Quantities: 100 µg, 50 µg, 10 µg

Purification: Protein A Chromatography

Host: Mouse

Concentration: 1 µg/µl

Molecular Weight: 17

Background: Histone H3 is one of the core components of the nucleosome, the basic building block of chromatin. Histones are subject to a variety of chemical modifications, including post-translational modifications of the histone proteins and the methylation of cytosine residues in the DNA. Reported histone modifications include acetylation, methylation, phosphorylation, ubiquitylation, glycosylation, ADP-ribosylation, carbonylation and SUMOylation; these modifications play a major role in regulating gene expression. Acetylation of Lys9 is associated with transcriptional activation of genes.

Immunogen: The Histone H3 acetyl Lys9 antibody was raised against a peptide including acetyl-lysine 9 of human Histone H3.

Buffer: Purified IgG in 0.1M Tris, pH 8.0, 1 M NaCl with 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:

Validated Applications:

ChIP: 2 - 5 µg per ChIP

ChIP-Seq: 5 µg each

WB: 0.2 - 2 µg/ml dilution dilution

Published Applications:

ChIP

WB

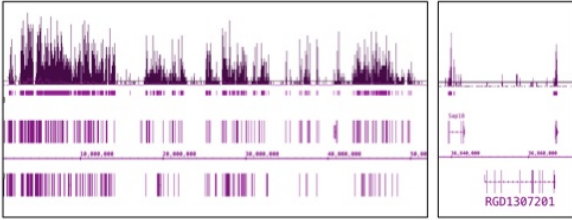
See references for more information. Individual optimization may be required. NGS-QC[®] certification. This antibody has been processed by the NGS-QC[®] generator. For additional details, [click here](#).

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.

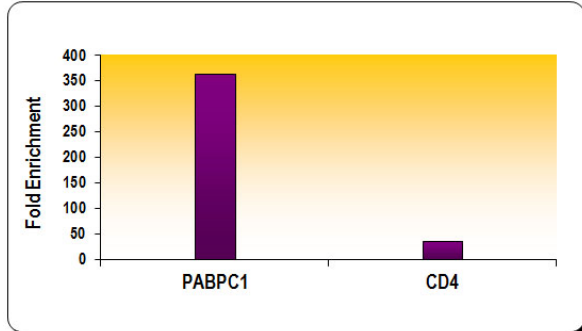
Histone H3 acetyl Lys9 antibody (mAb) tested by ChIP-Seq.

ChIP was performed using the ChIP-IT High Sensitivity[®] Kit (Cat. No. 53040) with chromatin from rat brain FFPE sections and 5 µl of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 5.2 million unique sequence tags were mapped to identify H3K9ac binding sites. The image on the left shows binding across the entire length of chromosome 20 and the data indicates good correlation of gene density and H3K9ac signal. The image on the right is zoomed in to show H3K9ac at the promoter of two genes.



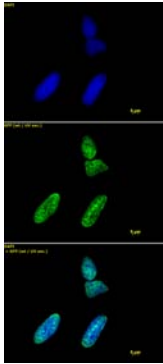
ChIP of Histone H3 acetyl Lys9 mAb.

Chromatin IP performed using the ChIP-IT[®] Express Kit (Cat. No. 53008) and HeLa chromatin (1.5 x 10⁶ cell equivalents per ChIP) using 3 µg of Histone H3 acetyl Lys9 antibody or the equivalent amount of mouse IgG as a negative control. Real time, quantitative PCR (RT-qPCR) was performed on DNA purified from each of the ChIP reactions using primer pairs specific for the indicated gene. Data are presented as Fold Enrichment of the ChIP antibody signal versus the negative control IgG using the ddCT method.



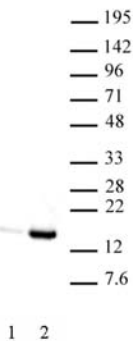
Histone H3 acetyl Lys9 antibody tested by immunofluorescence.

Detection of Histone H3 acetyl Lys9 by immunofluorescence. HeLa cells were stained with Histone H3 acetyl Lys9 antibody at a dilution of 2 µg/ml. Top panel: DAPI. Middle panel: Histone H3 acetyl Lys9 antibody staining. Bottom panel: merge.



Histone H3 acetyl Lys9 antibody (mAb) tested by Western blot.

HeLa nuclear extract (20 µg per lane) probed with Histone H3 acetyl Lys9 antibody (2 µg per ml).
Lane 1: no treatment. Lane 2: cells treated with sodium butyrate.



Histone H3 acetyl Lys9 mAb tested by dot blot analysis.

Dot blot analysis was used to confirm the specificity of Histone H3 acetyl Lys9 mAb for acetyl Lys9 of histone H3. Acetylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at a dilution of 2 µg per ml. The amount of peptide (picomoles) spotted is indicated next to each row. Top row: Lane 1: acetyl-Lys9 peptide. Lane 2: unmodified Lys9 peptide. Lane 3: acetyl-Lys14 peptide. Lane 4: unmodified Lys14 peptide. Lane 5: acetyl-Lys18 peptide. Lane 6: unmodified Lys18 peptide. Lane 7: acetyl-Lys23 peptide. Lane 8: unmodified Lys23 peptide. Lane 9: acetyl-Lys27 peptide. Lane 10: unmodified Lys27 peptide. Bottom row: Lane 1: acetyl-Lys56 peptide. Lane 2: acetyl-Lys64 peptide. Lane 3: H4 acetyl-Lys91 peptide. Lane 4: acetyl Lys37 peptide. Lane 5: acetyl-Lys36 peptide. Lane 6: acetyl-Lys4 peptide. Lane 7: acetyl-Lys122 peptide. Lane 8: acetyl-Lys79 peptide.

