

## Histone H3K14ac antibody (pAb)

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**Catalog Nos:** 65701, 65901, 65702

**Isotype:** Serum

**Application(s):** ChIP, DB, WB

**Reactivity:** Human, Wide Range Predicted

**Volumes:** 100 µl, 50 µl, 10 µl

**Purification:** None

**Host:** Rabbit

**Molecular Weight:** 17 kDa

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**Background:** Histone H3 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 147 base pairs of DNA wrapped around an octamer of core histone proteins (two each of Histone H2A, Histone H2B, Histone H3 and Histone H4). Chromatin is 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 histones is linked to a number of specific processes including transcriptional regulation and genomic organization.

**Immunogen:** This Histone H3 acetyl Lys14 antibody was raised against a peptide including acetyl-lysine 14 of histone H3.

**Buffer:** Rabbit serum containing 0.035% sodium azide and 30% glycerol. Sodium azide is highly toxic.

**Application Notes:**

Applications Validated by Active Motif:

ChIP-Seq: 4 µl per ChIP

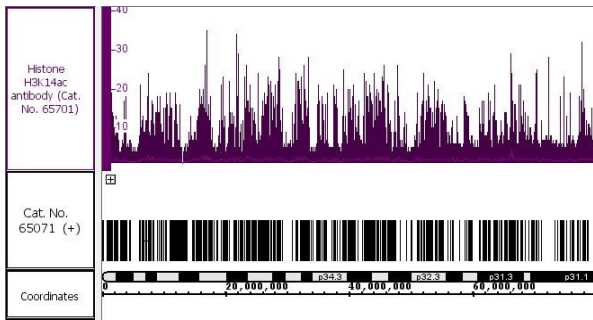
WB: 1:500-1:2000 dilution

DB: 1:1000 dilution

\*Note: For optimal results, we recommend the addition of 0.05% Tween-20 to all blocking solutions to reduce background in Western blot.

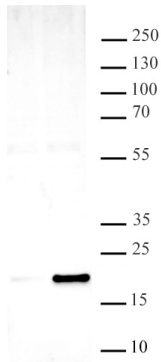
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This 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 H3K14ac antibody (pAb) tested by ChIP-Seq.

ChIP was performed using the ChIP-IT<sup>®</sup> High Sensitivity Kit (Cat. No. 53040) with 30 µg of HeLa cell chromatin and 4 µg of antibody. ChIP DNA was sequenced on the Illumina NextSeq and 10 million sequence tags were mapped to identify Histone H3K14ac binding sites on chromosome 1.



### Histone H3 acetyl Lys14 antibody tested by Western blot.

HeLa acid extract (10 µg per lane) was probed with Histone H3 acetyl Lys14 antibody (1:500 dilution).

Lane 1: No treatment.

Lane 2: Cells treated with sodium butyrate. In addition, we recommend the addition of 0.05% Tween 20 to all blocking solutions to reduce background.

### Histone H3 acetyl Lys14 pAb tested by dot blot analysis.

Dot blot analysis was used to confirm the specificity of Histone H3 acetyl Lys14 pAb for acetyl Lys14 histone H3. Acetylated peptides corresponding to the immunogen and related peptides were spotted onto nitrocellulose and probed with the antibody at a dilution of 1:500. The amount of peptide (picomoles) spotted is indicated next to each row.

Lane 1: Unmodified histone H3 peptide. Lane 2: Acetyl-Lys4 peptide. Lane 3: Acetyl-Lys9 peptide. Lane 4: Unmodified Lys9 peptide. Lane 5: Acetyl-Lys14 peptide. Lane 6: Unmodified Lys14 peptide. Lane 7: Acetyl-Lys18 peptide. Lane 8: Unmodified Lys18 peptide. Lane 9: Acetyl-Lys27 peptide. Lane 10: Unmodified Lys27 peptide. Lane 11: Acetyl-Lys36 peptide. Lane 12: Unmodified Lys36 peptide.

