

Histone H3K18ac antibody (pAb)

Catalog Nos: 39587, 39588

RRID: AB_2636965

Isotype: Serum

Application(s): ChIP, DB, ICC, IF, IHC, WB

Reactivity: Human, Wide Range Predicted

Volumes: 100 μ l, 10 μ l

Purification: None

Host: Rabbit

Molecular Weight: 17 kDa

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 Lys18 antibody was raised against a peptide including acetyl-lysine 18 of histone H3.

Buffer: Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic. For your convenience, an IgG version (Catalog No. 39755) of this antibody that was purified by Protein A Chromatography is also available.

Application Notes:

Applications Validated by Active Motif:

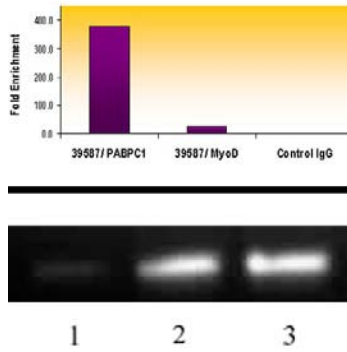
ChIP: 5 - 10 μ l per ChIP

ICC/IF: 1:500 - 1:1,000 dilution

WB: 1:2,500 - 1:10,000 dilution

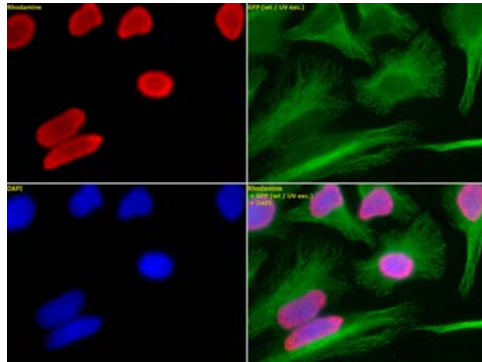
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product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

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



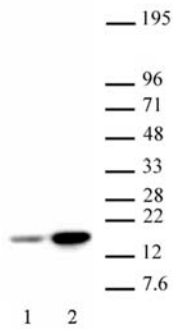
Histone H3 acetyl Lys18 antibody tested by ChIP.

Top Panel: Chromatin IP performed using the ChIP-IT[®] Express Kit (Catalog No. 53008) and HeLa Chromatin (1.5 x 10⁶ cell equivalents per ChIP) using 10 µl of Histone H3 acetyl Lys18 antibody or the equivalent amount of rabbit IgG as a negative control. Real time, quantitative PCR (RT-qPCR) was performed on DNA purified from each of the ChIP reactions using a primer pair 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 Lys18 antibody tested by immunofluorescence.

Top left: HeLa cells stained with Histone H3 acetyl Lys18 antibody (1:1,000). Top right: Same cells stained with alpha Tubulin mAb (Clone 5-B-1-2). Bottom left: Stained with DAPI. Bottom right: Merge of all 3 images.



Histone H3 acetyl Lys18 antibody tested by Western blot.

A549 whole-cell extract (20 µg per lane) probed with Histone H3 acetyl Lys18 antibody (1:5,000 dilution).

- Lane 1: Untreated cells.
- Lane 2: Cells treated with Trichostatin A.

Histone H3 acetyl Lys18 antibody tested by dot blot analysis.

Dot blot analysis was used to confirm the specificity of Histone H3 acetyl Lys18 antibody for acetyl Lys18 histone H3. Acetylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at a dilution of 1:5,000. The amount of peptide (picomoles) spotted is indicated next to each row.

- Lane 1: acetyl-Lys4 peptide.
- Lane 2: unmodified Lys4 peptide.
- Lane 3: acetyl-Lys18 peptide.
- Lane 4: unmodified Lys18 peptide.
- Lane 5: acetyl-Lys9 peptide.
- Lane 6: acetyl-Lys14 peptide.
- Lane 7: acetyl-Lys18 peptide (this is a different peptide sequence as the one in lane 3 which also contains acetyl-Lys18).
- Lane 8: acetyl-Lys23 peptide.
- Lane 9: acetyl-Lys27 peptide.

