

## Histone H3K14me2 antibody (pAb)

**Catalog Nos:** 39349, 39350

**RRID:** AB\_2793225

**Isotype:** Serum

**Application(s):** WB

**Reactivity:** Human, Wide Range Predicted

**Volumes:** 200 µl, 10 µl

**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). Histone H1 is a linker histone, present at the interface between the nucleosome core and DNA entry/exit points. Histone H1 is responsible for establishing higher-order chromatin structure. 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.

The methylation of histones can occur on two different residues: arginine or lysine. Histone methylation can be associated with transcriptional activation or repression, depending on the methylated residue.

**Immunogen:** This Histone H3 dimethyl Lys14 antibody was raised against a peptide containing dimethyl-lysine 14 of human histone H3.

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

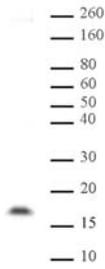
### Application Notes:

Applications Validated by Active Motif:

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

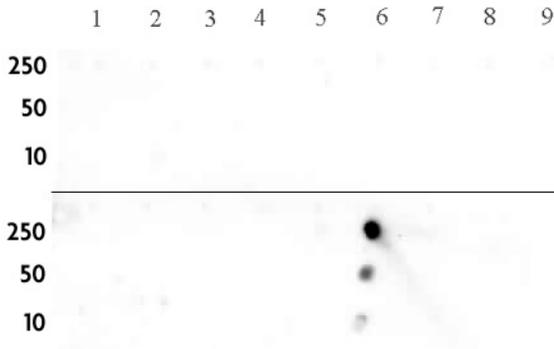
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This 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 dimethyl Lys14 pAb tested by Western blot.**

Detection of dimethylated Histone H3 by Western blot. The analysis was performed using 20 µg HeLa acid extract (10 µg, lane 1) and Histone H3 dimethyl Lys14 pAb at a 1:500 dilution.



**Histone H3 dimethyl Lys14 antibody tested by dot blot analysis.**

Dot blot analysis was used to confirm the specificity of Histone H3 dimethyl Lys14 antibody for histone H3 dimethylated at Lys14. Methylated 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 in the left lane next to each row.

Top panel: Lane 1: Unmodified lysine 4. Lane 2: Monomethyl lysine 4. Lane 3: Dimethyl lysine 4. Lane 4: Trimethyl lysine 4. Lane 5: Monomethyl lysine 4 #2. Lane 6: Unmodified corresponding to amino acids 6-22 of human histone H3. Lane 7: Monomethyl lysine 9. Lane 8: Dimethyl lysine 9. Lane 9: Trimethyl lysine 9. Bottom panel: Lane 1: Unmodified lysine 27. Lane 2: Monomethyl lysine 27. Lane 3: Dimethyl lysine 27. Lane 4: Trimethyl lysine 27. Lane 5: Monomethyl lysine 14 #2. Lane 6: Dimethyl lysine 14. No detection of peptides (mono-, di-, or trimethylated) corresponding to lysine 56 of histone H3 was observed (data not shown).