

## Histone H4K31me1 antibody (pAb)

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**Catalog Nos:** 39385, 39386

**RRID:** AB\_2793237

**Isotype:** Serum

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

**Reactivity:** Human, Wide Range Predicted

**Volumes:** 200 µl, 10 µl

**Purification:** None

**Host:** Rabbit

**Molecular Weight:** 8 kDa

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**Background:** Histone H4 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; it 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; they play a major role in regulating gene expression. The methylation of histones can occur on two different residues: arginine or lysine. Changes in methylation of histone H2B may be involved in heat-shock mechanisms.

**Immunogen:** This Histone H4 monomethyl Lys31 antibody was raised against a peptide containing monomethyl Lys31 of human histone H4.

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

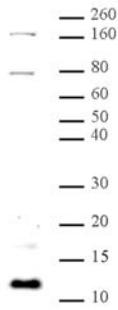
**Application Notes:**

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.

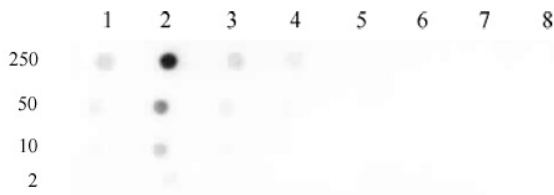


**Histone H4 monomethyl Lys31 pAb tested by Western blot.**

HeLa cell nuclear extract (20 µg per lane) was probed with Histone H4 monomethyl Lys31 pAb at a dilution of 1:1,000.

**Histone H4 monomethyl Lys31 pAb tested by dot blot analysis.**

Dot blot analysis was used to confirm the specificity of Histone H4 monomethyl Lys31 pAb for monomethyl Lys31 histone H4. Methylated peptides corresponding to the immunogen were spotted onto PVDF and probed with the antibody at 1:5,000. The amount of peptide (picomoles) spotted is indicated next to each row.



- Lane 1: Unmodified peptide corresponding to amino acids 28-36 of human histone H4
- Lane 2: Monomethyl Lys31
- Lane 3: Dimethyl Lys31; Lane 4: Trimethyl Lys31
- Lane 5: Unmodified peptide corresponding to amino acids 41-49 of human histone H4
- Lane 6: Monomethyl Lys44
- Lane 7: Dimethyl-Lys44
- Lane 8: Trimethyl Lys44.