

## Histone H3K56me2 antibody (pAb)

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**Catalog Nos:** 39277, 39278

**RRID:** AB\_2793215

**Isotype:** Serum

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

**Reactivity:** Human, Wide Range Predicted

**Volumes:** 200 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.

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. Lysine 56 of histone H3 can be mono-, di- or trimethylated by different histone methyltransferases (HMTs).

**Immunogen:** This Histone H3 dimethyl Lys56 antibody was raised against a peptide including dimethyl-lysine 56 of human histone H3.

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

**Application Notes:**

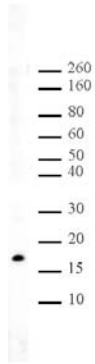
Applications Validated by Active Motif:

WB: 1:5,000 - 1:20,000 dilution

DB: 1:20,000 dilution

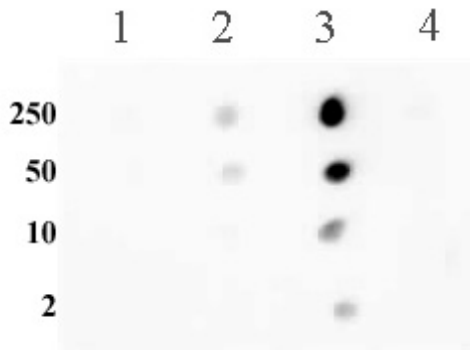
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This 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 Lys56 pAb tested by Western blot.**

HeLa acid extract (10 µg) was probed with Histone H3 dimethyl Lys56 pAb at a dilution of 1:10,000.



**Histone H3 dimethyl Lys56 pAb tested by dot blot analysis.**

Dot blot analysis was used to confirm the specificity of Histone H3 dimethyl Lys56 pAb for monomethyl Lys56 histone H3. Methylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at 1:60,000. The amount of peptide (picomoles) spotted is indicated next to each row.

- Lane 1: Unmodified lysine 56 peptide.
- Lane 2: Monomethyl lysine 56 peptide.
- Lane 3: Dimethyl lysine 56 peptide.
- Lane 4: Trimethyl lysine 56 peptide.

The Histone H3 dimethyl Lys56 pAb exhibits a 25- to 50-fold higher selectivity for dimethyl Lys56 vs. monomethyl Lys56.