Histone H3K18me1 antibody (pAb)

Catalog Nos: 39667, 39668
RRID: AB_2793297
Isotype: Serum
Application(s): DB, WB
Reactivity: Human, Wide Range Predicted

Volumes: 100 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; 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.

Lysine N-ε-acetylation is a dynamic, reversible and tightly regulated protein and histone modification that plays a major role in chromatin remodeling and in the regulation of gene expression in various cellular functions. Acetylation of histone H3 occurs at several different lysine positions in the histone tail, and is performed by Histone Acetyltransferases (HATs) such as CBP/p300. Acetylation of histones is often associated with transcriptional activation.

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 monomethyl Lys18 antibody was raised against a peptide containing monomethyl Lys18 of Histone H3.

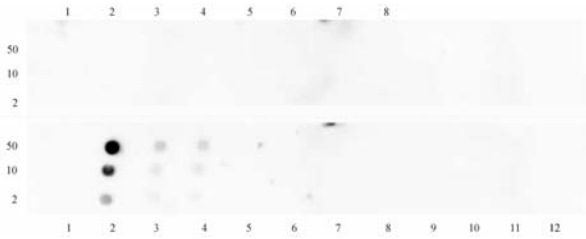
Buffer: Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:
Applications Validated by Active Motif:
WB: 1:500 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 monomethyl Lys18 pAb tested by Western blot.
HEK293 nuclear extract (20 µg) probed with Histone H3 monomethyl Lys18 pAb (1:500 dilution).



Histone H3 monomethyl Lys18 pAb tested by dot blot analysis.
Dot blot analysis was used to confirm the specificity of Histone H3 monomethyl Lys18 pAb for monomethyl-Lys18 of histone H3. Peptides corresponding to regions around major sites of histone H3 methylation were spotted onto PVDF and probed with Histone H3 monomethyl Lys18 pAb at a dilution of 1: 10,000. The amount of peptide (in picomoles) spotted is indicated 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: unmodified-lysine 9. Lane 6: monomethyl-lysine 9. Lane 7: dimethyl-lysine 9. Lane 8: trimethyl-lysine 9. Bottom panel: Lane 1: dimethyl-lysine14. Lane 2: monomethyl-lysine18. Lane 3: dimethyl-lysine18. Lane 4: trimethyl-lysine18. Lane 5: unmodified-lysine18. Lane 6: monomethyl-lysine23. Lane 7: dimethyl-lysine23. Lane 8: trimethyl-lysine23. Lane 9: unmodified-lysine27. Lane 10: monomethyl-lysine27. Lane 11: