Histone H3K36me3 antibody (mAb)

Catalog Nos: 61021, 61022
RRID: AB_2614986
Clone: MABI 0333
Application(s): ChIP, ChIP-Seq, DB, IF, WB
Reactivity: Human, Mouse, Wide Range Predicted

Quantities: 100 µg, 50 µg
Purification: Protein G Chromatography
Host: Mouse
Isotype: IgG1
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.

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. Histone H3 is methylated at lysine 36 by the Set2 (yeast) and NSD1 (mammals) methyltransferases. Dimethylation of lysine 36 of histone H3 is involved with transcriptional elongation by RNA pol II holoenzyme and is a marker of transcribed genes.

Immunogen: This Histone H3 trimethyl Lys36 antibody was raised against a peptide containing trimethyl Lys36 of human Histone H3.

Buffer: PBS pH 7.5 containing 30% glycerol, 0.3 M NaCl, and 0.035% sodium azide. Sodium azide is highly toxic.

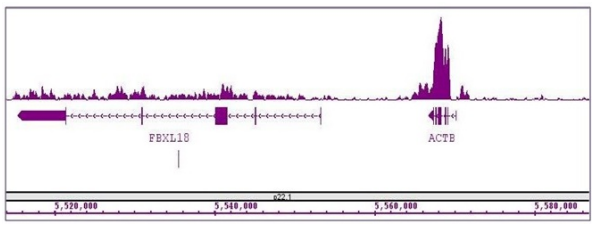
Application Notes:
Applications Validated by Active Motif:
ChIP: 5 - 10 µg per ChIP
ChIP-Seq: 5 - 10 µg each
WB: 0.5 - 2 µg/ml dilution
DB: 0.5 - 2 µg/ml dilution

ChIP-Seq validation was performed by Active Motif's Epigenetics Services; the complete data set is available in the UCSC Genome Browser by clicking here.

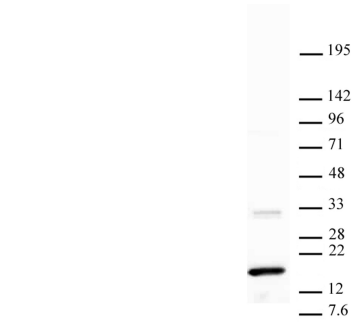
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product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

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

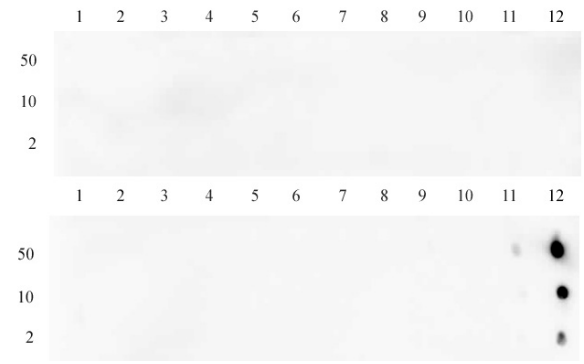
This antibody is manufactured by MAB Institute, Inc.



Histone H3K36me3 antibody (mAb) tested by ChIP-Seq.
ChIP was performed using the ChIP-IT® High Sensitivity Kit (Cat. No. 53040) with 15 ug of chromatin from a human medulloblastoma cell line and 4 µg of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 15 million sequence tags were mapped to identify Histone H3K36me3 binding sites. The image shows binding across a region of chromosome 7. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, here.



Histone H3K36me3 antibody (mAb) tested by Western blot
HeLa nuclear extract (20 µg per lane) probed with Histone H3 trimethyl Lys36 antibody (2 µg/ml dilution).



Histone H3K36me3 antibody (mAb) tested by dot blot.
Dot blot analysis was used to confirm the specificity of Histone H3K36me3 antibody for trimethyl Lys36 of histone H3. Recombinant methylated proteins corresponding to the immunogen and related sequences were spotted onto PVDF and probed with Histone H3K36me3 at 2 µg/ml. The amount of protein (picomoles) spotted is indicated next to each row.
Top panel - Lane 1: unmodified H3 Lys4. Lane 2: H3K4me1. Lane 3: H3K4me2. Lane 4: H3K4me3. Lane 5: unmodified H3 Lys9. Lane 6: H3K9me1. Lane 7: H3K9me2. Lane 8: H3K9me3. Lane 9: unmodified H3 Lys79. Lane 10: H3K79me1. Lane 11: H3K79me2. Lane 12: H3K79me3. Bottom panel - Lane 1: unmodified H3 Lys23. Lane 2: H3K23me1. Lane 3: H3K23me2. Lane 4: H3K23me3. Lane 5: unmodified H3 Lys27. Lane 6: H3K27me1. Lane 7: H3K27me2. Lane 8: H3K27me3. Lane 9: unmodified H3 Lys36. Lane 10: H3K36me1. Lane 11: H3K36me2. Lane 12: H3K36me3.