

Histone H3R8me2a (asymmetric) antibody (pAb)

Catalog Nos: 39651, 39652

RRID: AB_2793290

Isotype: IgG

Application(s): ChIP, ChIP-Seq, DB, WB

Reactivity: Human, Mouse, Wide Range Predicted

Volumes: 100 µl, 10 µl

Purification: Affinity Purified

Host: Rabbit

Molecular Weight: 17 kDa

Background: Histone H3 is one of the core components of the nucleosome, the basic building block of chromatin. Histones are 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 H3 Arg8, methylated by PRMT enzymes, is involved in nuclear-receptor-mediated transcriptional activation.

Immunogen: This Histone H3 dimethyl Arg8 asymmetric antibody was raised against a peptide containing dimethyl-Arg8 (asymmetric) of human histone H3.

Buffer: Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:

Applications Validated by Active Motif:

ChIP: 10 µl per ChIP

ChIP-Seq: 10 µl each

WB: 1:500 dilution

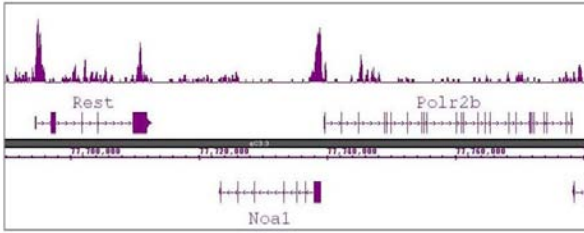
ChIP-Seq validation was performed by Active Motif's Epigenetics Services; the complete data set is available in the UCSC Genome Browser by clicking [here](#).

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.

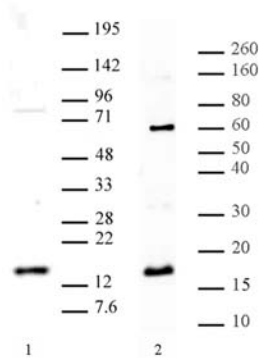
Histone H3R8me2a antibody (pAb) tested by ChIP-Seq.

ChIP was performed using the ChIP-IT[®] High Sensitivity Kit (Cat. No. 53040) with 30 ug of chromatin from a mouse osteoblast cell line and 7 µl of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 20 million sequence tags were mapped to identify Histone H3R8me2a binding sites. The image shows binding across a region of chromosome 5. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, here.



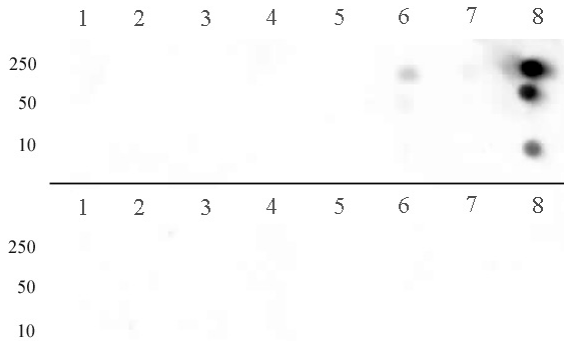
Histone H3 dimethyl Arg8 asymmetric pAb tested by Western blot.

Nuclear extract from U2OS cells (20 µg) or HEK293 cells (20 µg) was probed with Histone H3 dimethyl Arg8 asymmetric pAb (1:500 dilution).



Histone H3 dimethyl Arg8 asymmetric pAb tested by dot blot analysis.

Dot blot analysis was used to confirm the specificity of Histone H3 dimethyl Arg8 asymmetric pAb for dimethyl-arginine 8 of histone H3. Peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with Histone H3 dimethyl Arg8 asymmetric pAb at 1:30,000. The amount of peptide (picomoles) spotted is indicated next to each row.



Top Panel: Lane 1: unmod Arg2. Lane 2: monomethyl-Arg2 H3. Lane 3: dimethyl-Arg2 H3 (sym). Lane 4: dimethyl-Arg2 H3 (asym). Lane 5: unmod Arg8. Lane 6: monomethyl-Arg8 H3. Lane 7: dimethyl-Arg8 H3 (sym). Lane 8: dimethyl-Arg8 H3 (asym). Bottom Panel: Lane 1: unmod Arg17 H3. Lane 2: monomethyl-Arg17. Lane 3: dimethyl-Arg17 H3 (sym). Lane 4: dimethyl-Arg17 H3 (asym). Lane 5: unmod Arg26. Lane 6: monomethyl-Arg26 H3. Lane 7: dimethyl-Arg26 H3 (sym). Lane 8: dimethyl-Arg26 H3 (asymmetric). No detection of peptides