Histone H2BK46me2 antibody (pAb)

Catalog Nos: 39567, 39568
RRID: AB_2793261
Isotype: Serum
Application(s): DB, ICC, IF, WB
Reactivity: Human, Wide Range Predicted

Volumes: 200 µl, 10 µl
Purification: None
Host: Rabbit
Molecular Weight: 15 kDa

Background: Histone H2B 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.

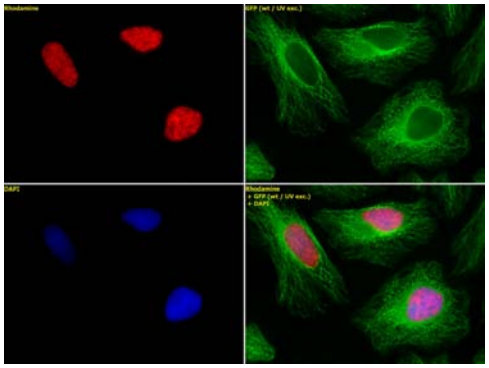
Immunogen: This Histone H2B dimethyl Lys46 antibody was raised against a peptide containing dimethyl-lysine 46 of human histone H2B.

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

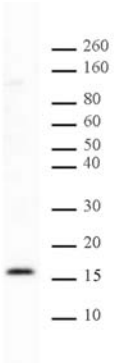
Application Notes:
Applications Validated by Active Motif:
WB: 1:500 - 1:2,000 dilution
ICC/IF: 1:250 - 1:1,000 dilution

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 H2B dimethyl Lys46 pAb tested by immunofluorescence.
Top left: HeLa cells stained with Histone H2B dimethyl Lys46 pAb (1:1,000). Top right: Same cells stained with alpha Tubulin mAb (Clone 5-B-1-2). Bottom left: Stained with DAPI. Bottom right: Merge of all 3 images.



Histone H2B dimethyl Lys46 pAb tested by Western blot.
HeLa acid extract (10 µg per lane) probed with Histone H2B dimethyl Lys46 pAb (1:2,000 dilution).

Histone H2B dimethyl Lys46 pAb tested by dot blot analysis.
Dot blot analysis was used to confirm the specificity of Histone H2B dimethyl Lys46 pAb for dimethyl Lys46 histone H2B. Methylated peptides corresponding to the immunogen and related sequences derived were spotted onto PVDF and probed with the antibody at 1:20,000. The amount of peptide (picomoles) spotted is indicated next to each row.

Lane 1: unmodified histone H2B peptide.
Lane 2: monomethyl Lys46 H2B peptide.
Lane 3: dimethyl Lys46 H2B peptide.
Lane 4: trimethyl Lys46 H2B peptide.
Lane 5: dimethyl Lys4 H3 peptide.