Histone H1.5S17ph antibody (pAb)

Catalog Nos: 61107, 61108
RRID: AB_2793508
Isotype: IgG
Application(s): DB, WB
Reactivity: Human, Wide Range Predicted

Volumes: 100 µl, 10 µl
Purification: Affinity Purified
Host: Rabbit
Molecular Weight: 36 kDa

Background: 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.

Histone H1.5 is an H1 isotype expressed in somatic cells and is heavily phosphorylated during mitosis. Phosphorylation of H1.5 at serine 17 appears in prometaphase and disappears in telophase. The hyperphosphorylated form of H1.5 is mainly chromatin-bound in metaphase when chromatin is maximally condensed. Phosphorylation of H1.5 at serine 17 can be catalyzed by GSK-3.

Immunogen: This Histone H1.5 phospho Ser17 antibody was raised against a peptide containing phospho Ser17 of human histone H1.5.

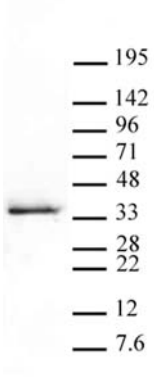
Buffer: Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:
Applications Validated by Active Motif:
WB*: 1:500 - 1:2,000 dilution
DB: 1:1000 dilution

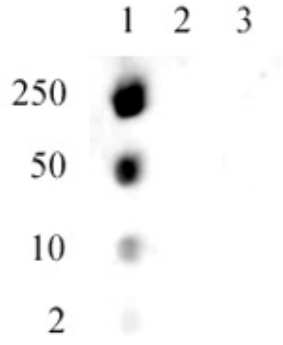
For optimal results, primary antibody incubations should be performed at 4°C. Individual optimization may be required.

*Note: many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western Blot.

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.



Western Blot:
HeLa nuclear extract (20 µg per lane) probed with the Histone H1.5 phospho Ser17 antibody (pAb) at a dilution of 1:1,000.



Specificity Data:
Dot blot analysis was used to confirm the specificity of the Histone H1.5 phospho Ser17 antibody. Peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at a dilution of 1:1,000. The amount of peptide (picomoles) spotted is indicated next to each row.

Lane 1: phospho Ser17 peptide. Lane 2: unmodified Ser17 peptide. Lane 3: phospho