Histone H3S28ph antibody (pAb)

Catalog Nos: 39149, 39150
RRID: AB_2793168
Isotype: Serum
Application(s): DB, WB
Reactivity: Human, Wide Range Predicted

Volumes: 200 µl, 10 µl
Purification: None
Host: Rabbit
Molecular Weight: 17 kDa

Background: Histone H3 is one of five main histone proteins involved as core components of the nucleosome, the basic building block of chromatin. 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.

Ser10 phosphorylation and Ser28 phosphorylation in the tail of H3 have very similar kinetics. Both phosphorylations occur early in mitosis when chromosomes begin to condense and during premature chromosome condensation induced in S-phase cells. These phosphorylated serines are excellent mitotic markers. In contrast to Ser10 phosphorylation, Ser28 phosphorylation has never been observed in interphase.

Immunogen: This Histone H3 phospho Ser28 antibody was raised against a peptide including phospho-serine 28 of histone H3.

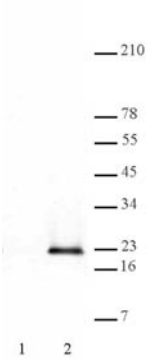
Buffer: Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:
Applications Validated by Active Motif:
WB*: 1:500 - 1:10,000 dilution

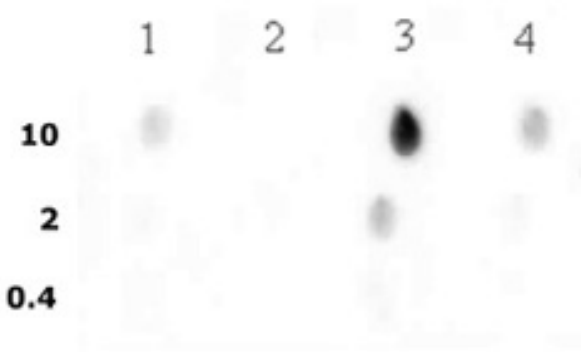
*Note: many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western blot.

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.

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



Histone H3 phospho Ser28 pAb tested by Western blot.
HeLa acid extract (5 µg per lane) was probed with Histone H3 phospho Ser28 pAb (1:5,000 dilution).
Lane 1: No treatment.
Lane 2: Cells treated with colcemid.



Histone H3 phospho Ser28 pAb tested by dot blot analysis.
Dot blot analysis was used to confirm the specificity of Histone H3 phospho Ser28 pAb for phospho-Ser 10 of histone H3. Peptides corresponding to regions around major sites of histone H3 phosphorylation (serine 10 and serine 28) were spotted onto PVDF and probed with 39149 at a dilution of 1:5,000. The amount of peptide (in picomoles) spotted is indicated next to each row.
Lane 1: Peptide phosphorylated at serine 10.
Lane 2: Unmodified serine 10 peptide.
Lane 3: Peptide phosphorylated at serine 28.
Lane 4: Unmodified serine 28 peptide.