Histone H3T11ph antibody (pAb)

Catalog Nos: 61197, 61198
RRID: AB_2793549
Isotype: IgG
Application(s): DB, WB
Reactivity: Human, Wide Range Predicted

Quantities: 100 µg, 10 µg
Purification: Protein A Chromatography
Host: Rabbit
Concentration: 1 µg/µl
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.

Phosphorylation of several residues of histone H3, such as Ser10 (Histone H3 phospho Ser10), Ser28 (Histone H3 phospho Ser28) and Thr11, is tightly correlated with chromosome condensation during both mitosis and meiosis. Localization of histone H3 phospho Thr11 is different in mammals and in plants. In plant cells, phosphorylation of Thr11 of histone H3 is distributed along the entire length of condensed chromosome. In mammals, this modification is restricted to the centromeric region of the chromosome. Thr11 of histone H3 is phosphorylated by Dlk/ZIP kinases during mitosis.

Immunogen: This Histone H3 phospho Thr11 antibody was raised against a peptide containing phospho-Thr11 of human histone H3.

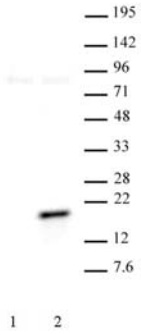
Buffer: Purified IgG in PBS with 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic. For your convenience, an unpurified serum version (Catalog No. 39151) of this antibody is also available.

Application Notes:
Applications Validated by Active Motif:
WB*: 0.5 - 2 µg/ml dilution

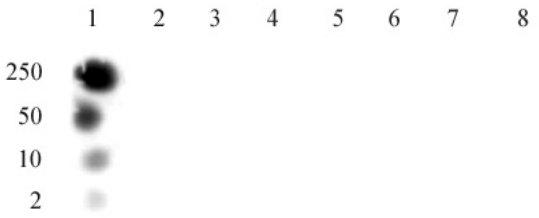
*Note: many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western blot.

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 Thr11 pAb tested by Western blot.
Western blot probed with Histone H3 phospho Thr11 pAb (1 µg/ml dilution).
Lane 1: 20 µg nuclear extract of HeLa cells.
Lane 2: 20 µg nuclear extract of HeLa cells treated with colcemid.



Histone H3 phospho Thr11 pAb tested by dot blot analysis.
Dot blot analysis was used to confirm the specificity of Histone H3 phospho Thr11 pAb for phospho-Thr11 of histone H3. Decreasing amounts of peptides corresponding to regions around major sites of histone H3 threonine phosphorylation were spotted onto PVDF and probed with the antibody at a dilution of 0.5 µg/ml.
Lane 1: Peptide phosphorylated at threonine 11. Lane 2: Unmodified threonine 11 peptide. Lane 3: Peptide phosphorylated at threonine 3. Lane 4: Peptide phosphorylated at threonine 6. Lane 5: Peptide phosphorylated at threonine 45. Lane 6: Peptide phosphorylated at threonine 80. Lane 7:Peptide phosphorylated at threonine 10. Lane 8:Peptide phosphorylated at threonine 28.