Histone H2AT120ph antibody (pAb)

Catalog Nos: 61195, 61196

RRID: AB_2793548
Isotype: IgG
Application(s): DB, IF, WB
Reactivity: Human, Wide Range Predicted

Quantities: 100 µg, 10 µg
Purification: Protein A Chromatography
Host: Rabbit
Concentration: 1 µg/µl
Molecular Weight: 14 kDa

Background: Histone H2A 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.

Phosphorylation of histones occurs at multiple sites during mitosis. H2A Thr120 phosphorylation is observed on chromatin during both mitosis and meiosis. Thr120 phosphorylation is inversely correlated with ubiquitylation of H2A Lys119 in meiotic mouse spermatocytes. In *Drosophila*, loss of H2A Thr120 phosphorylation is associated with a failure to disassemble the synaptonemal complex, impaired loading of condensin and female infertility. It is possible that H2A Thr120 phosphorylation is involved in the regulation of chromatin structure.

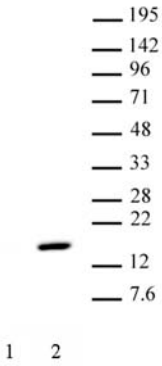
Immunogen: This Histone H2A phospho Thr120 antibody was raised against a peptide containing phospho Thr120 of human histone H2A.

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. 39391) of this antibody is also available.

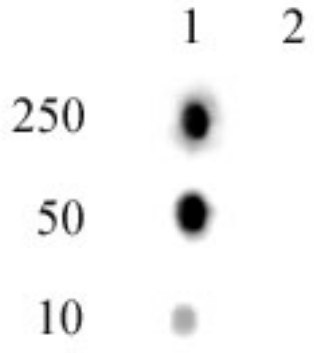
Application Notes:
Applications Validated by Active Motif:
WB: 0.5 - 2 µg/ml dilution
DB: 1 µg/ml dilution

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 H2A phospho Thr120 pAb tested by Western blot.
HeLa acid extract (10 µg per lane) was probed with Histone H2A phospho Thr120 pAb at a dilution of 1 µg/ml .
Lane 1: No treatment.
Lane 2: Cells treated with colcemid to arrest cells at mitosis.



Histone H2A phospho Thr120 pAb tested by dot blot analysis.
Dot blot analysis was used to confirm the specificity of Histone H2A phospho Thr120 pAb for phospho Thr120 histone H2A. The modified and unmodified peptides to the immunogen were spotted onto PVDF and probed with the antibody at a dilution of 1 µg/ml . The amount of peptide (picomoles) spotted is indicated next to each row. Lane 1: Phospho Thr120 peptide. Lane 2: Unmodified Thr120 peptide.