

Histone H2A/H4S1ph antibody (pAb)

Catalog Nos: 39115, 39116

RRID: AB_2793160

Isotype: Serum

Application(s): DB, WB

Reactivity: Human, Wide Range Predicted

Volumes: 200 µl, 10 µl

Purification: None

Host: Rabbit

Molecular Weight: 14 and 8 kDa

Background: Histones H2A and H4 are 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 first five amino acids of histone H2A and histone H4 are identical in metazoans and include an amino-terminal serine residue. Histone H2A phosphorylation at serine 1 is enriched during mitosis, while H4 phosphorylation increases subsequent to DNA double-strand breaks.

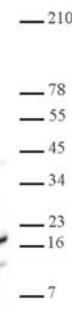
Immunogen: This Histone H2A/H4 phospho Ser1 antibody was raised against a peptide including phospho-serine 1 of human histone H2A.

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

Application Notes:

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.

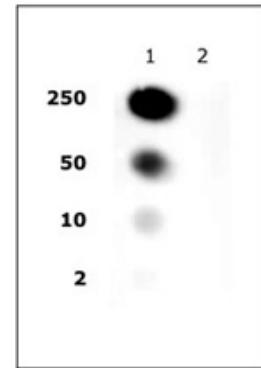


Histone H2A/H4 phospho Ser1 pAb tested by Western blot.

HeLa acid extract (5 µg per lane) was probed with Catalog No. 39115 (1:30,000 dilution).

Lane 1: No treatment.

Lane 2: Cells treated with colcemid.



Histone H2A/H4 phospho Ser1 pAb tested by dot blot analysis.

Dot blot analysis was used to confirm the specificity of Histone H2A/H4 phospho Ser1 pAb for phospho Ser1 of Histone H2A/H4.

Modified and unmodified peptides were spotted onto PVDF and probed with the antibody at a 1:10,000 dilution. The amount of peptide spotted (in picomoles) is indicated next to each row.

Lane 1: Peptide phosphorylated at Ser1.

Lane 2: Unmodified Ser1 peptide.

Application Key: ChIP = Chromatin Immunoprecipitation; FACS = Flow Cytometry; IF = Immunofluorescence; IHC = Immunohistochemistry; IP = Immunoprecipitation; WB = Western Blot