

Histone H3.3S31ph antibody (pAb)

Catalog Nos: 39637, 39638

RRID: AB_2793286

Isotype: IgG

Application(s): DB, IF, WB

Reactivity: Human, Wide Range Predicted

Volumes: 100 µl, 10 µl

Purification: Affinity Purified

Host: Rabbit

Molecular Weight: 17 kDa

Background: Histone H3.3 (H3F3) is a variant of histone H3 that contains a serine (S) to alanine (A) replacement at amino acid position 31. This variant Histone H3.3 has been found to replace conventional histone H3 in nucleosomes of active genes. Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. Histone variants differ in amino acid sequence from their core histone counterparts and in some cases have also been shown to have functional differences to the more typical histones. Histone variant H3.3 is the predominant form of histone H3 in non-dividing cells. Phosphorylation of serine 31 of histone variant H3.3 is specific to regions bordering centromeres in metaphase chromosomes. (Reference: Hake *et al.* (2005) PNAS 102: 6344-6349.)

Immunogen: This Histone H3.3 phospho Ser31 antibody was raised against a peptide containing phospho Ser31 of Histone H3.3.

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.

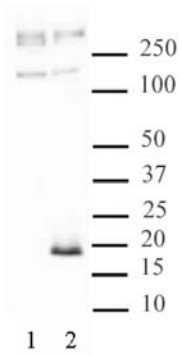
Application Notes:

Applications Validated by Active Motif:

WB: 1:500 dilution

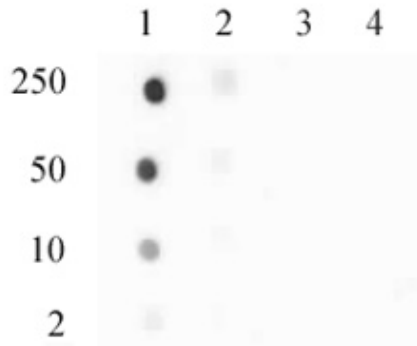
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product 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 H3.3 phospho Ser31 antibody tested by Western blot.

Detection of Histone H3.3 by Western blot. The analysis was performed using 40 µg of untreated (lane 1) or cocemid treated (lane 2) HeLa acid extract with a 1:500 dilution of Histone H3.3 phospho Ser31 antibody.



Histone H3.3 phospho Ser31 antibody tested by Dot blot.

Dot blot analysis was used to confirm the specificity of Histone H3.3 phospho Ser31 antibody. Peptides corresponding to histone H3.3 and regions around major sites of histone H3 phosphorylation (serine 10 and serine 28) were spotted onto PVDF and probed with 39637 at a dilution of 1:10,000. The amount of peptide (in picomoles) spotted is indicated next to each row. Lane 1: peptide phosphorylated at serine 31 of H3.3. Lane 2: unmodified serine 31 peptide. Lane 3: peptide phosphorylated at serine 10 of H3. Lane 4: peptide phosphorylated at serine 28 of H3.