

Histone H3S28ph antibody (mAb)

Catalog No: 39098

RRID: AB_2793154

Clone: HTA28

Isotype: IgG2a

Application(s): IF

Reactivity: Human, Mouse, Rat, Wide Range Predicted

Volume: 100 μ l

Purification: Affinity Purified

Host: Rat

Concentration: 1.15 μ g/ μ l

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.

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 in rat against a peptide corresponding to amino acid residues 23-35 (phospho Ser 28) of human Histone H3.

Buffer: Purified IgG in 0.1 M Tris-glycine (pH 7.4), 150 mM NaCl and 0.05% sodium azide. Sodium azide is highly toxic. For your convenience, an ascites version (Catalog No. 61325) of this antibody is also available.

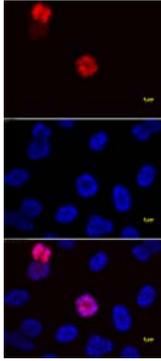
Application Notes:

Validated Applications:

ICC/IF: 1:1,000 - 1:5,000 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.

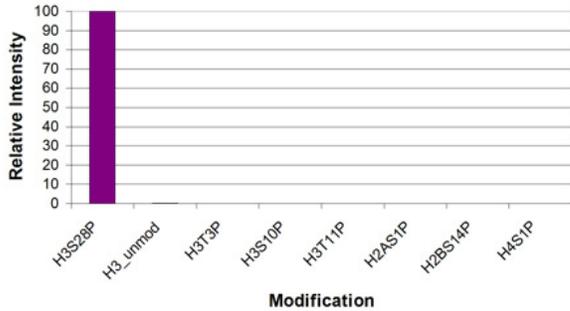


Histone H3 phospho Ser28 antibody tested by immunofluorescence.

Top: HeLa cells stained with Histone H3 phospho Ser28 antibody at a 1:1,000 dilution.

Middle: Same cells stained with DAPI.

Bottom: Merge of both images.



Histone H3 phospho Ser28 antibody specificity tested by peptide array analysis.

Peptide array analysis was used to confirm the specificity of this antibody for its intended modification. Histone H3 phospho Ser28 antibody was applied at a dilution of 1:3,000 to Active Motif's MODified™ Histone Peptide Array (Catalog No. 13001). The arrays were scanned with ArrayAnalysis Software 7 and the results plotted. Specificity data is shown for the most reactive peptides and those related to the immunogen. Recognition of the Histone H3 phospho Ser28 peptides by the antibody is inhibited by Lys27 monomethylation and blocked by Arg26 dimethylation and a citrulline at position 26.

Array Data File