

## Histone H3S10ph antibody (mAb)

**Catalog No:** 39636

**RRID:** AB\_2793285

**Clone:** MABI 0312

**Isotype:** IgG1

**Application(s):** DB, ICC, IF, WB

**Reactivity:** Human, Wide Range Predicted

**Quantity:** 100 µg

**Purification:** Protein G Chromatography

**Host:** Mouse

**Concentration:** 1.0 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.

Interestingly, phosphorylation of Ser10 on histone H3 is involved in both transcription and cell division, two events requiring opposite alterations in the degree of chromatin compaction. Ser10 in the tail of histone H3 is phosphorylated early in mitosis when chromosomes begin to condense, and during premature chromosome condensation induced in S-phase cells.

**Immunogen:** This Histone H3 phospho Ser10 antibody was raised against a peptide containing phospho serine 10 of human histone H3.

**Buffer:** PBS pH 7.5 containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

### Application Notes:

Applications Validated by Active Motif:

ICC/IF: 1 µg/ml dilution

WB: 0.2 - 2 µg/ml dilution

DB: 1 µg/ml dilution

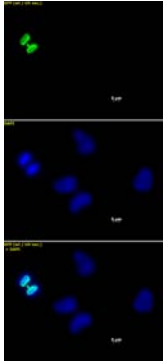
This antibody has not been validated in ChIP, but ChIP-validated antibodies are available for this target: Catalog No. 39253.

For Histone H3S10ph, we also offer AbFlex<sup>®</sup> Histone H3S10ph Recombinant Antibody (rAb). For details, see Catalog No. 91131.

**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.

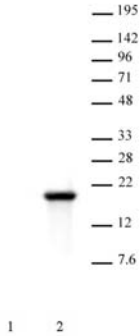
This product is for research use only and is not for use in diagnostic procedures.

This antibody is manufactured by MAB Institute, Inc.



**Histone H3 phospho Ser10 mAb tested by immunofluorescence.**

Staining of HeLa cells with Histone H3 phospho Ser10 mAb (1 µg/ml, top panel) and DAPI (middle panel), and a merge of both images (bottom panel).

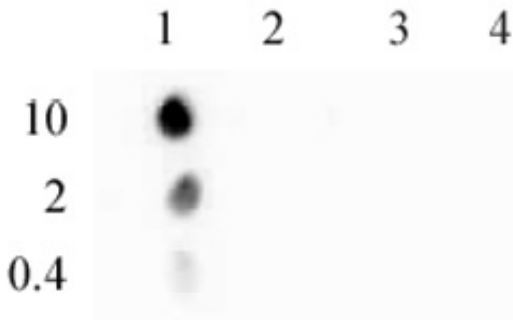


**Histone H3S10ph antibody (mAb) tested by Western blot.**

HeLa nuclear extract (30 µg per lane) was probed with Histone H3S10ph antibody at a 2 µg/ml dilution.

Lane 1: No treatment.

Lane 2: Cells treated with colcemid.



**Histone H3 phospho Ser10 mAb tested by dot blot analysis.**

Dot blot analysis was used to confirm the specificity of Histone H3 phospho Ser10 mAb for phospho Ser10 histone H3. Phosphorylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at 1 µg/ml. The amount of peptide (picomoles) spotted is indicated next to each row.

Lane 1: peptide phosphorylated at serine 10.

Lane 2: unmodified serine 10 peptide.

Lane 3: peptide phosphorylated at serine 28.

Lane 4: unmodified serine 28 peptide.