

## Datasheet for 600-401-I74

## Histone H3 phospho S10 Antibody

### Overview

<b>Description:</b>	Anti-Histone H3 [p Ser10] (RABBIT) Antibody - 600-401-I74
<b>Item No.:</b>	600-401-I74
<b>Size:</b>	50 µg
<b>Applications:</b>	Dot Blot, IF, Multiplex, WB
<b>Reactivity:</b>	Human, C. elegans
<b>Host Species:</b>	Rabbit

### Product Details

<b>Background:</b>	H3 pS10 is typically associated with activation of transcription of genes associated with histone H3. This modification is linked to the initiation of chromatin condensation in G(2). During mitosis, H3pS10 is required for proper chromosome segregation. Formation of the H3pS10 modification seems to be regulated in part by p53, which interacts with histone modifying complexes. In development of the retina, the presence of H3pS10 is linked to the abundance of eye defects. This developmental effect of H3pS10 seems to be related to Psf2 and GPR84. The human Timeless protein (Tim) regulates the global H3pS10 phosphorylation in G2/M phase. VASP concentrations peak during mitosis in HeLa cells at the same time as H3pS10, indicating that co-responsibility for transition of G2/M phases. AURKB promotes the phosphorylation of histone H3 at pS10. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.
<b>Synonyms:</b>	rabbit anti-Histone H3 pS10 antibody, H3.3B, H3 histone, family 3A, H3.3AH3F3H3F3B, histone H3.3, MGC87783, MGC87782, H3pS10
<b>Host Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG

### Target Details

<b>Gene Name:</b>	HIST2H3C
<b>Reactivity:</b>	Human, C. elegans

<b>PTM Specificity:</b>	Phosphorylation
<b>Immunogen Type:</b>	Conjugated Peptide
<b>Immunogen:</b>	Histone H3 [p Ser10] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic phosphorylated peptide surrounding Serine 10 of human Histone H3.2.
<b>Purity/Specificity:</b>	Anti-Histone H3 [p Ser10] was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with human Histone H3.2. A BLAST analysis was used to suggest cross-reactivity with Human, mouse, and C. elegans. Predicted to react with many species including rat, chicken, Xenopus, Drosophila, and plant based on 100% sequence homology. Cross-reactivity with Histone H3 from other sources has not been determined.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q71DI3</a></li><li>• <a href="#">NCBI - NP_001005464</a></li><li>• <a href="#">GeneID - 126961</a></li></ul>

## Application Details

<b>Tested Applications:</b>	Dot Blot, IF, Multiplex, WB
<b>Application Note:</b>	Anti-Histone H3 [p Ser10] antibody is tested by Western Blot, Immunofluorescence, and Dot Blot. This antibody is useful for Immunocytochemistry and Chromatin Immunoprecipitation. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~15.4 kDa corresponding to Histone H3 protein by Western Blotting in HeLa histone prep lysate or the appropriate cell lysate or extract. Epi-Plus™ antibody production in collaboration with Novus Biologicals.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>IF:</b>	1:2000
<b>IHC:</b>	1:2000
<b>WB:</b>	1:500

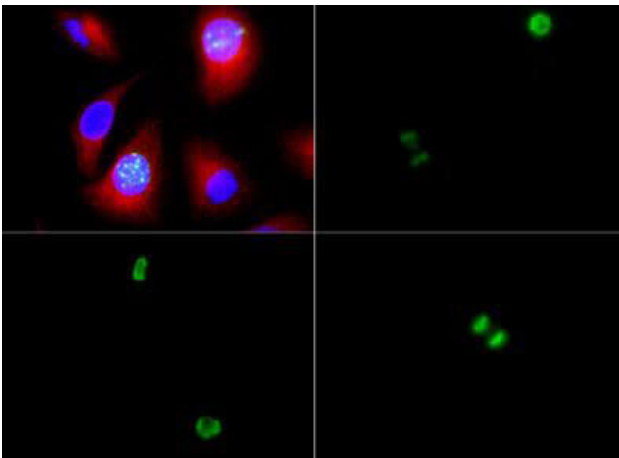
## Formulation

<b>Physical State:</b>	Liquid (sterile filtered)
<b>Concentration:</b>	0.44 mg/ml by UV absorbance at 280 nm
<b>Buffer:</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Preservative:</b>	0.01% (w/v) Sodium Azide
<b>Stabilizer:</b>	30% Glycerol

## Shipping & Handling

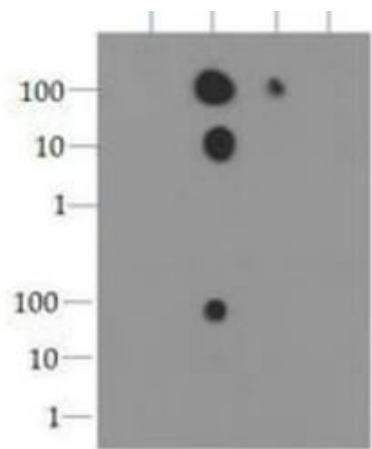
<b>Shipping Condition:</b>	Dry Ice
<b>Storage Condition:</b>	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images



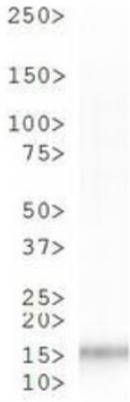
### Immunofluorescence Microscopy

Immunofluorescence of Rabbit Anti-Histone H3 [p Ser10] Antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [p Ser10] antibody at a 1:200 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3 [p Ser10] is nuclear and chromosomal. Staining: Histone H3 [p Ser10] is expressed in green, nuclei and actin are counterstained with Dapi (blue) and Phalloidin (red).

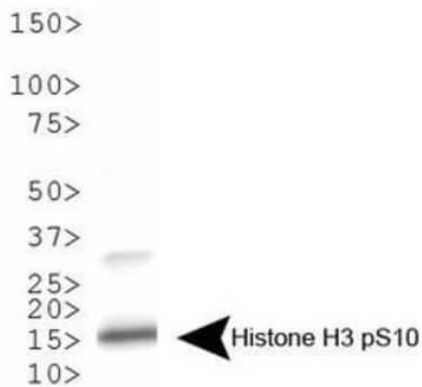


### Dot Blot

Dot Blot of Rabbit Histone H3 [p Ser10] Antibody. Lane 1: unmodified. Lane 2: pS10. Lane 3: pS10pT11. Lane 4: pT11. Load: 1, 10, and 100 picomoles of peptide. Primary antibody: Histone H3 [p Ser10] antibody at 0.005µg/mL (bottom blot) and 0.025µg/mL (top blot) for 45 min at 4°C. Secondary antibody: Dylight™488 rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.

**Western Blot**

Western Blot of Rabbit Anti-Histone H3 [p Ser10] Antibody.  
Lane 1: *C. elegans* embryo lysate. Load: 30 µg per lane.  
Primary antibody: Histone H3 [p Ser10] at 1:500 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~15 kDa.  
Other band(s): None.

**Western Blot**

Western Blot of Rabbit Anti-Histone H3 [p Ser10] Antibody.  
Lane 1: HeLa histone prep lysates. Load: 30 µg per lane.  
Primary antibody: Histone H3 [p Ser10] at 1:500 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~15 kDa.  
Other band(s): None.

**References**

- Belew M et al. Characterization of factors that underlie transcriptional silencing in *C. elegans* oocytes. *PLoS Genet.* (2023)

**Disclaimer**

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