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Datasheet for 600-401-I75

Histone H3 phospho S10/pT11 Antibody

Overview

Description:	Anti-Histone H3 [p Ser10, p Thr11] (RABBIT) Antibody - 600-401-I75
Item No.:	600-401-I75
Size:	50 µg
Applications:	IF, WB
Reactivity:	Human, C. elegans
Host Species:	Rabbit

Product Details

Background:	When confronted with DNA damage or the lack of certain kinases like Chk1 and Aurora1, histone H3 is phosphorylated at T11, causing a reduction in acetylation of the same histone at K9 and ultimately leading to a reduction of active transcription in affected cells. When the T11 phosphorylation is combined with a typical S10 phosphorylation that is critical in chromosome condensation in metaphase, the effect on transcriptional regulation is amplified further. Phosphorylation of H3S10 is decreased by T11 phosphorylation. Thus, detection of the combined modification is critical in determining transcriptional effects, especially when contrasted against single modifications of H3. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.
Synonyms:	rabbit anti-Histone H3 pS10 pT11 antibody, H3.3B, H3.3AH3F3H3F3B, H3 histone, family 3A, histone H3.3, MGC87783, MGC87782, H3pS10/pT11
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	HIST2H3C
Reactivity:	Human, C. elegans
PTM Specificity:	Phosphorylation

Immunogen Type:	Conjugated Peptide
Immunogen:	Histone H3 [p Ser10, p Thr11] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic phosphorylated peptide surrounding Serine 10 and Threonine 11 of human Histone H3.2.
Purity/Specificity:	Anti-Histone H3 [p Ser10, p Thr11] 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.
Relevant Links:	• UniProtKB - Q71DI3 • NCBI - NP_001005464 • GeneID - 126961

Application Details

Tested Applications:	IF, WB
Application Note:	Anti-Histone H3 [p Ser10, p Thr11] antibody is tested for Western Blot and Immunofluorescence. This antibody is useful for Dot Blot and Immunocytochemistry. 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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ChIP:	2-5µg/million cells
IF:	1:200
IHC:	1:200
WB:	1:500

Formulation

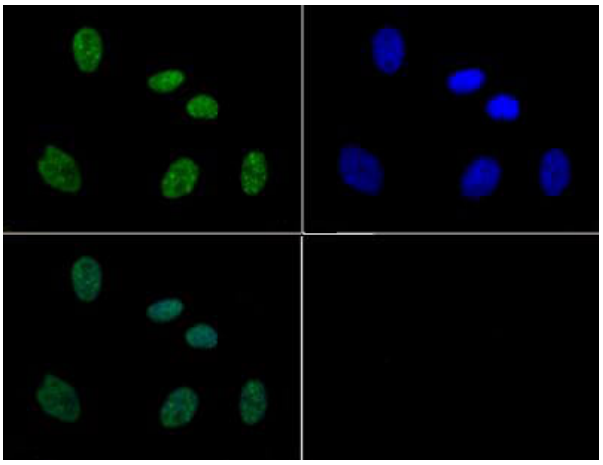
Physical State:	Liquid (sterile filtered)
Concentration:	1.2 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Stabilizer:	30% Glycerol

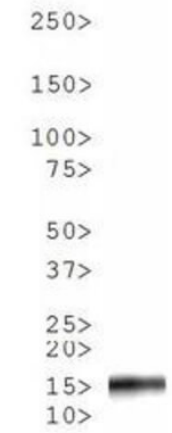
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	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.
Expiration:	Expiration date is one (1) year from date of receipt.

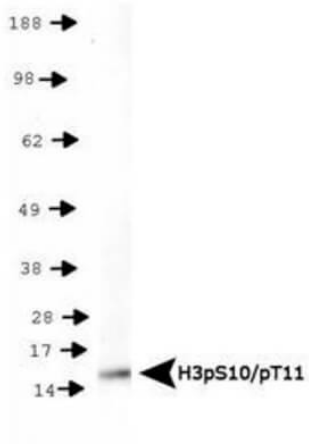
Images



Immunofluorescence Microscopy
Immunofluorescence of Rabbit Anti-Histone H3 [p Thr11, p Ser10] Antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [p Thr11, 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 Thr11, p Ser10] is nuclear and chromosomal. Staining: Histone H3 [p Thr11, p Ser10] is expressed in green, nuclei are counterstained with Dapi (blue).



Western Blot
Western Blot of Rabbit Anti-Histone H3 [p Ser10, p Thr11] Antibody. Lane 1: C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [p Ser10, p Thr11] 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, p Thr11] Antibody. Lane 1: HeLa histone preps. Load: 30 µg per lane. Primary antibody: Histone H3 [p Ser10, p Thr11] 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.

Disclaimer

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