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Datasheet for 600-401-I73

Histone H3 K9ac/K14ac Antibody

Overview

Description:	Anti-Histone H3 [ac Lys9, ac Lys14] (RABBIT) Antibody - 600-401-I73
Item No.:	600-401-I73
Size:	50 µg
Applications:	Dot Blot, IF, Multiplex, WB
Reactivity:	Human, Mouse, C. elegans
Host Species:	Rabbit

Product Details

Background:	Acetylation at K9 and K14 of histone H3 is known to be an epigenetic modification associated with active transcription. Under cellular stress conditions, H3K9ac/K14ac levels increase, probably due to the inactivation of the HDA6 histone deacetylase. Particularly, during infections with herpes simplex virus, the acute phase of the infection is demarcated by increased presence of H3K9ac/K14ac associated with transcriptionally active euchromatin. The virus seems to take advantage of the highly transcribed regions of euchromatin for viral replication, increasing the lytic infection. 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 Ac Lys9 / Ac Lys14 antibody, H3.3B, H3 histone, family 3A, H3.3AH3F3H3F3B, histone H3.3, MGC87783, MGC87782, H3K9ac/K14ac
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	HIST2H3C
Reactivity:	Human, Mouse, C. elegans
PTM Specificity:	Acetylation
Immunogen Type:	Conjugated Peptide

Immunogen:	Histone H3 [ac Lys9, ac Lys14] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic acetylated peptide surrounding Lysines 9 and 14 of human Histone H3.2.
Purity/Specificity:	Anti-Histone H3 [ac Lys9, ac Lys14] 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:	Dot Blot, IF, Multiplex, WB
Application Note:	Anti-Histone H3 [ac Lys9, ac Lys14] antibody is tested for Western Blot, Dot Blot, and Immunofluorescence. This antibody is useful for Chromatin Immunoprecipitation 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

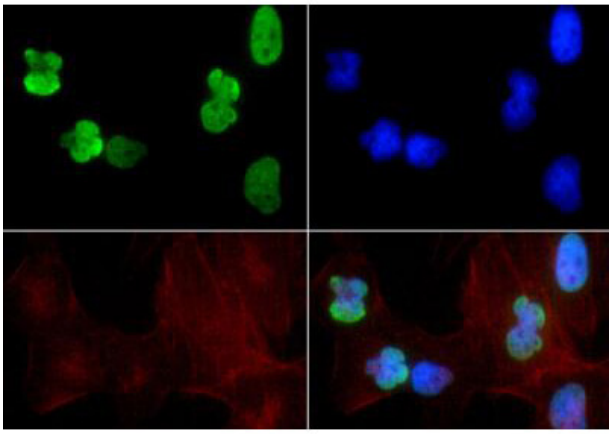
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.63mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.05% (w/v) Sodium Azide
Stabilizer:	30% Glycerol

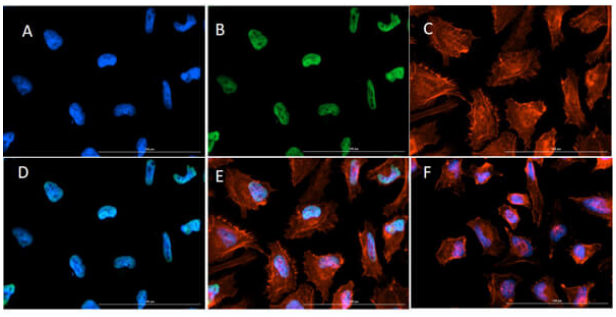
Shipping & Handling

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.

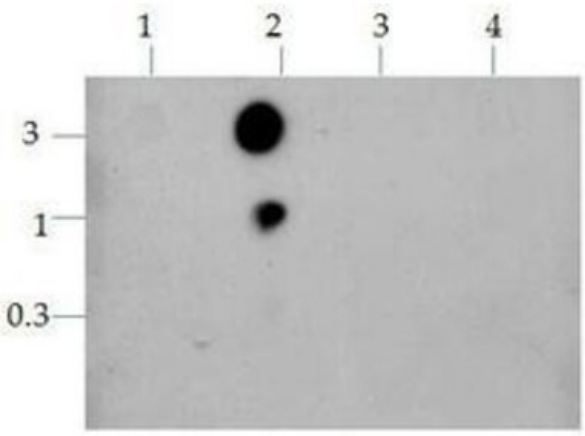
Images



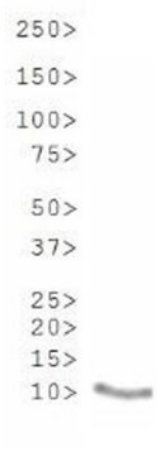
Immunofluorescence Microscopy
Immunofluorescence of Rabbit Anti-Histone H3 [ac Lys9, ac Lys14] Antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [ac Lys9, ac Lys14] antibody at a 1:200 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3 [ac Lys9, ac Lys14] is nuclear and chromosomal. Staining: Histone H3 [ac Lys9, ac Lys14] is expressed in green, nuclei and actin are counterstained with Dapi (blue) and Phalloidin (red).



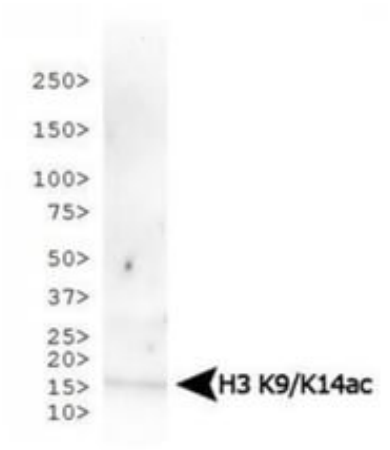
Immunofluorescence Microscopy
ImmunoFluorescence of Rabbit Anti-Histone H3 K9ac/K14ac Antibody. Cells: HeLa Cells. Fixation: 4% PFA. Permeabilization: 0.3% Triton X-100. Primary Antibody: Anti-Histone H3 [ac Lys9, ac Lys14] at 5µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG DyLight™488 (p/n 611-141-122) at 5µg/mL for 1hr at RT. Nuclear Counterstain: DAPI. Actin Filament Stain: Texas Red - X Phallodin. Staining: (A) DAPI. (B) K9 AC/K14 AC + DyLight™488. (C) Actin-X Phallodin. (D) Merge A+B. (E) Merge A+B+C. (F) Secondary Only Merge. Expected Location: Nuclear and Chromosomal.



Dot Blot
Dot Blot of Rabbit Histone H3 [K9ac, K14ac] Antibody. Lane 1: K9-K14. Lane 2: K9-KAc-K14-Kac. Lane 3: K9-K14-Kac. Lane 4: K9-Ac-K14. Load: 0.3, 1, and 3 µg of peptide. Primary antibody: Histone H3 [ac Lys9, ac Lys14] antibody for 45 min at 4°C. Secondary antibody: HRP rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO A overnight at 4°C.



Western Blot
Western Blot of Rabbit Anti-Histone H3 [ac Lys9, ac Lys14] Antibody. Lane 1: C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [ac Lys9, ac Lys14] 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 [ac Lys9, ac Lys14] Antibody. Lane 1: NIH-3T3 histone preps. Load: 30 µg per lane. Primary antibody: Histone H3 [ac Lys9, ac Lys14] 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.

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