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Datasheet for 600-401-I95

Histone H3 K79me3 Antibody

Overview

Description:	Anti-Histone H3 [Trimethyl Lys79] (RABBIT) Antibody - 600-401-I95
Item No.:	600-401-I95
Size:	50 µg
Applications:	ChIP, Dot Blot, IF, Multiplex, WB
Reactivity:	Human, C. elegans
Host Species:	Rabbit

Product Details

Background:	Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fibre is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. Covalent modifications of the canonical core histones, including acetylation, phosphorylation, methylation, and monoubiquitination are used to mark nucleosomes to create chromatin domains with a range of functions. The information encoded by histone modifications can contribute to the formation and/or maintenance of transcriptionally active and inactive chromatin in response to various signalling pathways. Anti-Histone H3 are ideal for researchers interested in Chromatin Research, Epigenetics, Chromatin Modifiers, Histones and Modified Histones, and Phospho Specific research.
Synonyms:	rabbit anti-Histone H3 trimethyl Lys79 antibody, H3.3B, H3K27Me3, H3K79Me3, H3 histone, family 3A, H3.3AH3F3H3F3B, histone H3.3, MGC87783, MGC87782
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	HIST2H3C
Reactivity:	Human, C. elegans

PTM Specificity:	Methylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Histone H3 [Trimethyl Lys79] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic trimethylated peptide surrounding Lysine 79 of human Histone H3.
Purity/Specificity:	Anti-Histone H3 [Trimethyl Lys79] was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with human Histone H3. 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:	ChIP, Dot Blot, IF, Multiplex, WB
Application Note:	Anti-Histone H3 [Trimethyl Lys79] antibody is tested in Western Blot, Dot Blot, Chromatin Immunoprecipitation, and Immunofluorescence. This antibody is useful for 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:	1:100-1:1000
IHC:	1:100-1:1000
WB:	1µg/mL

Formulation

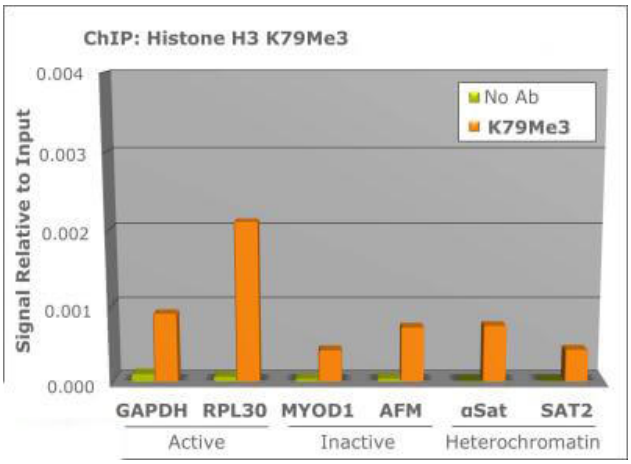
Physical State:	Liquid (sterile filtered)
Concentration:	0.6 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	30% Glycerol

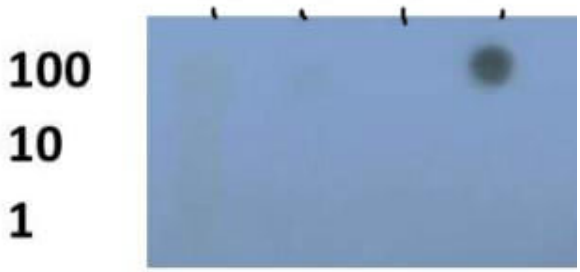
Shipping & Handling

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.

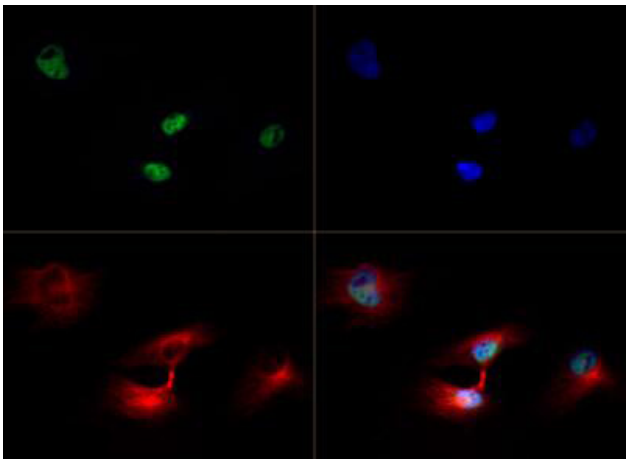
Images



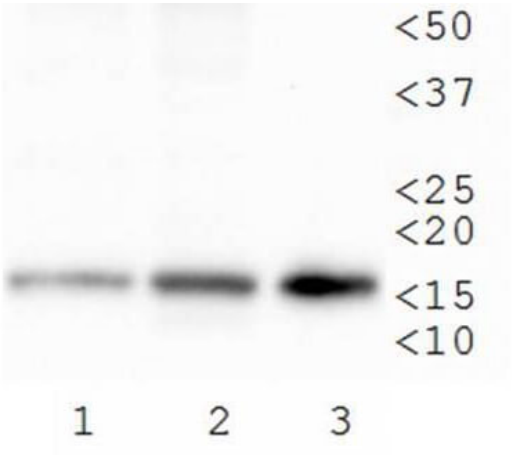
ChIP
Chromatin Immunoprecipitation of Rabbit Anti-Histone H3 [Trimethyl Lys79] Antibody. Chromatin from one million formaldehyde cross-linked HeLa cells was used with 2ug of Anti-Histone H3 K27me3 and 20ul of magnetic IgG beads per immunoprecipitation. A no antibody (No Ab) control was also used. Immunoprecipitated DNA was quantified using quantitative real-time PCR and SYBR green dye, then normalized to the non-precipitated input chromatin, which is equal to one.



Dot Blot
Dot Blot of Rabbit Histone H3 [Trimethyl Lys79] Antibody. Lane 1: K79 unmodified. Lane 2: K79me1. Lane 3: K79me2. Lane 4: K79me3. Load: 1, 10, and 100 picomoles of peptide. Primary antibody: Histone H3 [Trimethyl Lys79] antibody at 1:1000 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.



Immunofluorescence Microscopy
Immunofluorescence of Rabbit Anti-Histone H3 [Trimethyl Lys79] Antibody. Tissue: HeLa cells during prophase. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [Trimethyl Lys79] antibody at a 1:100 dilution for 1 h at RT. Secondary antibody: Dylight 488 secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3 [Trimethyl Lys79] is nuclear and chromosomal. Staining: Histone H3 [Trimethyl Lys79] is expressed in green, nuclei and alpha-tubulin are counterstained with DAPI (blue) and Dylight 550 (red).



Western Blot
Western Blot of Rabbit Anti-Histone H3 [Trimethyl Lys79] Antibody. Lane 1: HeLa Histone prep. Lane 2: 3T3 Histone prep. Lane 3: C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [Trimethyl Lys79] at 1 µg/ml 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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