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Datasheet for 600-401-I59

Histone H3 K4me3 Antibody

Overview

Description:	Anti-Histone H3 [Trimethyl Lys4] (RABBIT) Antibody - 600-401-I59
Item No.:	600-401-I59
Size:	50 µg
Applications:	ChIP, Dot Blot, IF, WB
Reactivity:	Human, Mouse, C. elegans
Host Species:	Rabbit

Product Details

Background:	H3K4Me3 is a common epigenetic modification that occurs in close proximity to nearly 2/3 of human gene promoters, and seems to balance another modification, H3K27Me3. These two modifications work in tandem to differentiate and/or maintain stem cells. Zygotic cells are activated in the most part by H3K4Me3; whereas, cancer is associated with disrupted associations between K3K4Me3 and ING1. 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 trimethyl Lys4 antibody, H3.3B, H3.3AH3F3H3F3B, H3 histone, family 3A, histone H3.3, MGC87783, MGC87782, H3K4me3
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

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

Immunogen:	Histone H3 [Trimethyl Lys4] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic trimethylated peptide surrounding Lysine 4 of human Histone H3.2.
Purity/Specificity:	Anti-Histone H3 [Trimethyl Lys4] 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:	ChIP, Dot Blot, IF, WB
Application Note:	Anti-Histone H3 [Trimethyl Lys4] antibody is tested in Western Blot, Immunofluorescence, Chromatin Immunoprecipitation, and Dot Blot. 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:	2-5 µg/million cells
IF:	1:500
IHC:	1:500
WB:	1:500

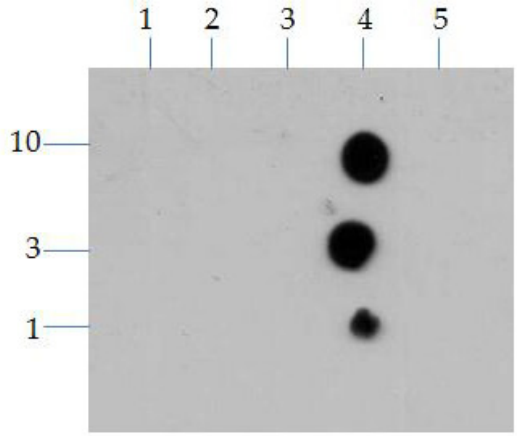
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.70 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.

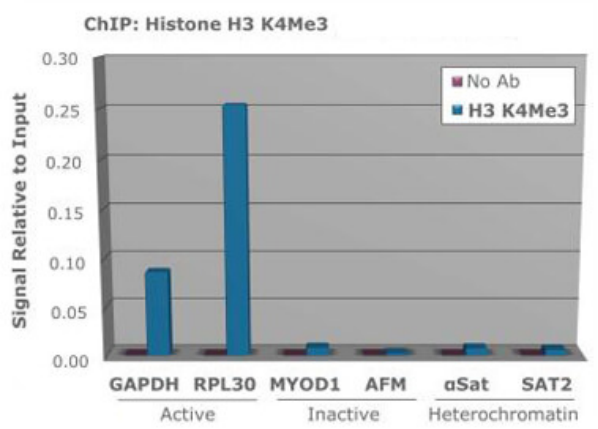
Images



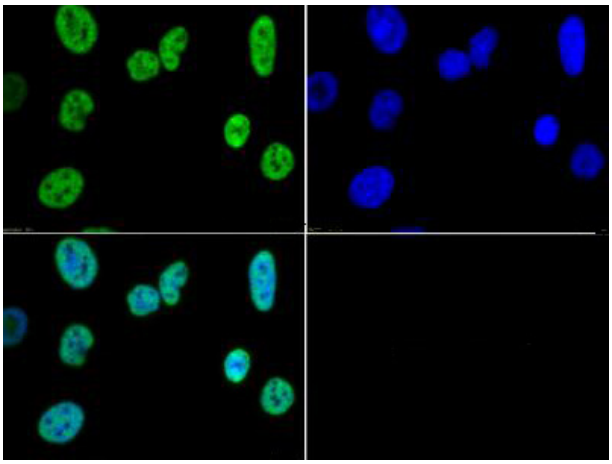
Dot Blot
Dot Blot of Rabbit Histone H3 K4me3 Antibody. Lane 1: K4. Lane 2: K4-KMe1. Lane 3: K4-KMe2. Lane 4: K4-KMe3. Lane 5: K23-KMe3. Load: 1, 3, and 10 µg of peptide. Primary antibody: Histone H3 [Trimethyl Lys4] antibody at 1:1000 for 45 min at 4°C. Secondary antibody: Dylight™488 rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.

Promo
Rockland Immunochemicals is manufacturing Epi-Plus™ antibody in collaboration with Novus Biologicals.

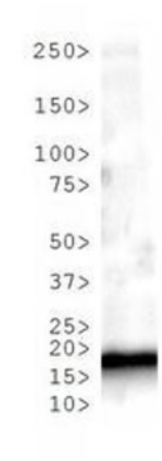
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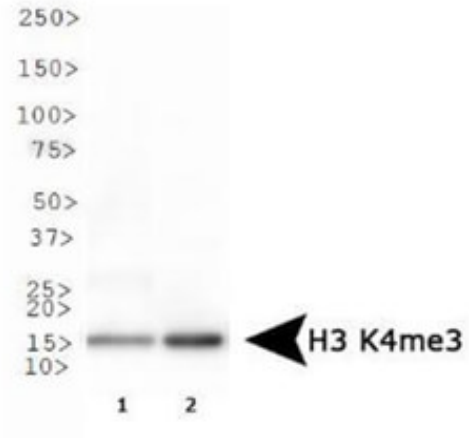
ChIP
Chromatin Immunoprecipitaion of Rabbit Anti-Histone H3 K4/me3 Antibody. Chromatin from one million formaldehyde cross-linked Hela cells was used with 2ug of Anti-Histone H3 K4/me3 and 20ul of magnetic IgG beads per immunoprecipitation. A no antibody (No Ab) control was also used. Immunoprecipitated 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.



Immunofluorescence Microscopy
Immunofluorescence of Rabbit Anti-Histone H3 K4/me3 Antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [Trimethyl Lys4] antibody at a 1:50 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3 [Trimethyl Lys4] is nuclear and chromosomal. Staining: Histone H3 K4me3 is expressed green and the nuclei are counterstained blue with DAPI.



Western Blot
Western Blot of Rabbit Anti-Histone H3 K4/me3 Antibody. Lane 1: C. elegans embryo nuclear extract. Load: 30 µg per lane. Primary antibody: Histone H3 [Trimethyl Lys4] 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 K4/me3 Antibody. Lane 1: HeLa histone preps. Lane 2. NIH-3T3 prep lystates. Load: 30 µg per lane. Primary antibody: Histone H3 [Trimethyl Lys4] 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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