

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:	<ul style="list-style-type: none">• 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

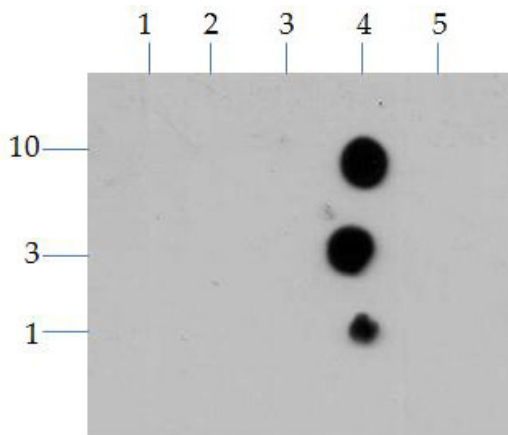
Shipping & Handling

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



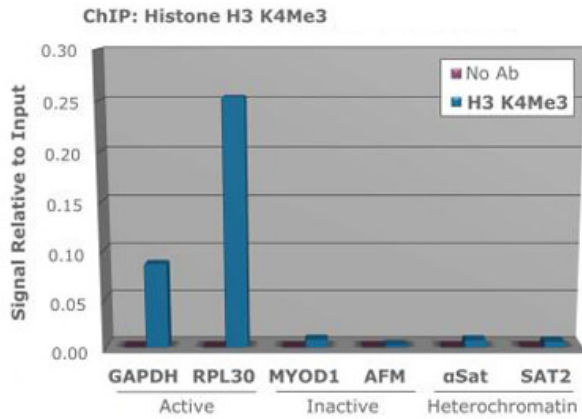
Dot Blot

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

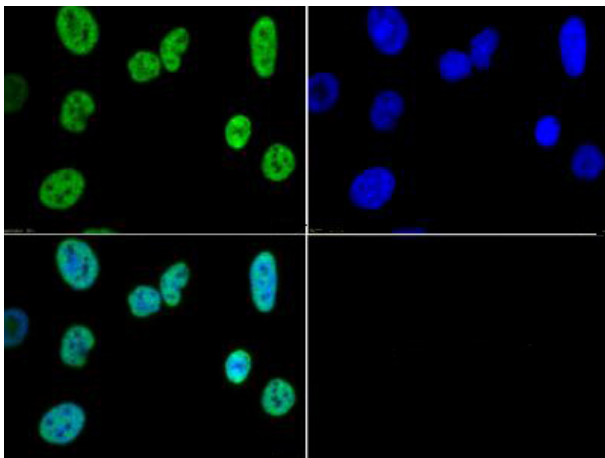
Rockland Immunochemicals is manufacturing Epi-Plus™ antibody in collaboration with Novus Biologicals.





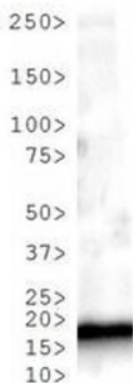
ChIP

Chromatin Immunoprecipitation 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.



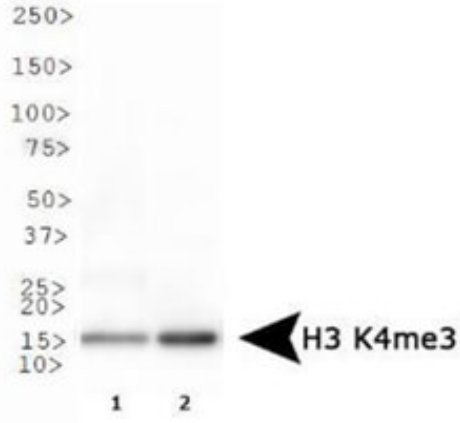
Immunofluorescence Microscopy

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

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.