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Datasheet for 600-401-I90

Histone H3 K37me1 Antibody

Overview

Description:	Anti-Histone H3 [Monomethyl Lys37] (RABBIT) Antibody - 600-401-I90
Item No.:	600-401-I90
Size:	50 µg
Applications:	Dot Blot, IF, Multiplex, WB
Reactivity:	Human, Mouse, C. elegans
Host Species:	Rabbit

Product Details

Background:	Chromatin is the arrangement of DNA and proteins in which chromosomes are formed. Correspondingly, chromatin is formed from nucleosomes, which are comprised of a set of four histone proteins (H2A, H2B, H3, H4) wrapped with DNA. Chromatin is a very dynamic structure in which numerous post-translational modifications work together to activate or repress the availability of DNA to be copied, transcribed, or repaired. These marks decide which DNA will be open and commonly active (euchromatin) or tightly wound to prevent access and activation (heterochromatin). Common histone modifications include methylation of lysine and arginine, acetylation of lysine, phosphorylation of threonine and serine, and sumoylation, biotinylation, and ubiquitylation of lysine. Anti-Histone H3 are ideal for researchers interested in Chromatin Research, Epigenetics, Chromatin Modifiers, Histones and Modified Histones research.
Synonyms:	rabbit anti-Histone H3 monomethyl Lys37 antibody, H3.3B, H3 histone, family 3A, H3.3AH3F3H3F3B, histone H3.3, MGC87782, MGC87783, H3K37me1
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 [Monomethyl Lys37] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic methylated peptide surrounding Lysine 37 of human Histone H3.
Purity/Specificity:	Anti-Histone H3 [Monomethyl Lys37] 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:	Dot Blot, IF, Multiplex, WB
Application Note:	Anti-Histone H3 [Monomethyl Lys37] antibody is tested for Bot Blot, Western Blot, and Immunofluorescence. 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. Anti-Histone H3 is also useful for Dot Blot. 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:	not recommended
IF:	not recommended
IHC:	not recommended
WB:	1µg/mL

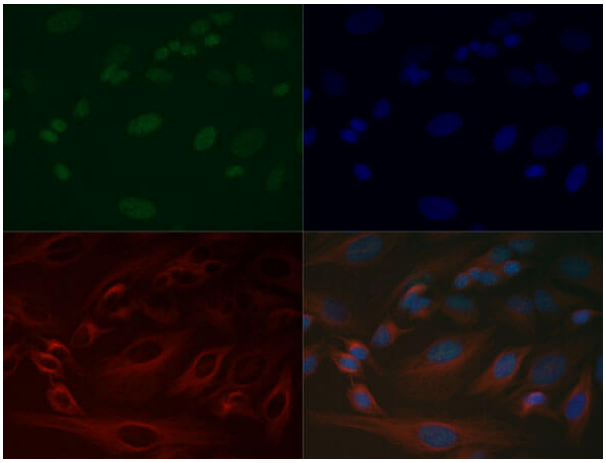
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 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

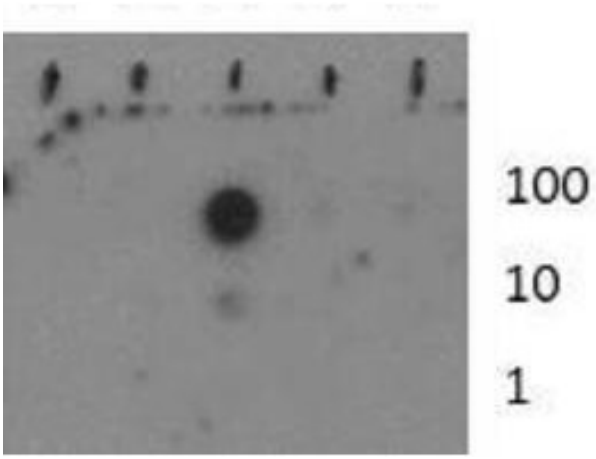
Shipping & Handling

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.

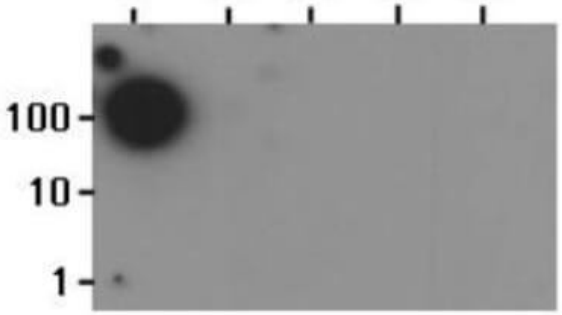
Images



Immunofluorescence Microscopy
Immunofluorescence of Anti-Histone H3 K37 me1: Histone H3 monomethyl Lys37 antibody was tested at 1:200 in HeLa cells with FITC (green). Cells and nuclei were counterstained with DAPI (blue) and DyLight 550 (red). (40X)

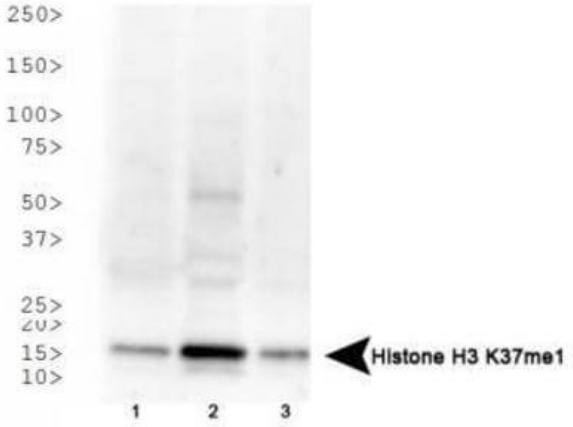


Dot Blot
Dot Blot of Rabbit Histone H3 [Monomethyl Lys37] Antibody. Lane 1: K37. Lane 2: K37Ac. Lane 3: K37Me1. Lane 4: K37Me2. Lane 5: K37Me3. Load: 1, 10, and 100 picomoles of peptide. Primary antibody: Histone H3 [Monomethyl Lys37] antibody at 1:1000 for 45 min at 4°C. Secondary antibody: Dylight™488 rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.



Dot Blot

Dot Blot of Rabbit Histone H3 [Monomethyl Lys37] Antibody. Lane 1: K37me1. Lane 2: K36me1. Lane 3: K36me2. Lane 4: K36me3. Lane 5: K36ac. Load: 1, 10, and 100 picomoles of peptide. Primary antibody: Histone H3 [Monomethyl Lys37] 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.



Western Blot

Western Blot of Rabbit Anti-Histone H3 [Monomethyl Lys37] Antibody. Lane 1: HeLa histone prep. Lane 2: NIH-3T3 histone prep. Lane 3: C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [Methyl Lys37] 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.

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