Datasheet for ABIN5706789

anti-Histone 3 antibody (H3R17me2a)

4 Images

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Overview

Quantity:	50 µg
Target:	Histone 3 (H3)
Binding Specificity:	H3R17me2a
Reactivity:	Human, Mouse, C. elegans
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Histone 3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Chromatin Immunoprecipitation (ChIP), Fluorescence Microscopy (FM)

Product Details

Purpose:	Histone H3 R17me2a Antibody
Immunogen:	Immunogen: Histone H3 [Asym-dimethyl Arg17] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic asymmetric dimethylated peptide surrounding Arginine 17 of human Histone H3.2. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	This antibody reacts with human Histone H3.
Characteristics:	Synonyms: rabbit anti-Histone H3 Asym-dimethyl Arg17 antibody, H3.3B, H3 histone, family 3A, H3.3AH3F3H3F3B, histone H3.3, MGC87783, MGC87782, H3R17me2a
Purification:	Anti-Histone H3 [Asym-dimethyl Arg17] was affinity purified from monospecific antiserum by

Product Details

	immunoaffinity chromatography.
Sterility:	Sterile filtered

Target Details

Target:	Histone 3 (H3)
Alternative Name:	Histone H3 (H3 Products)
Background:	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. In particular, dimetylation of H3 Arg17 (H3 R17Me2) has been linked to gene activation. Coactivator-associated arginine methyltransferase-1 (CARM1) methylates Arg17 with its protein arginine methyltransferase (PRMT) catalytic core. Activation of this modification is linked to transcription hormone response promotors, as well as cell fate regulation. Interestingly, H3 methylation of R17 and R26 contributes to greater pluripotency potential of stem cells, while downregulation of this PTM increases differentiation. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.
Gene ID:	126961
NCBI Accession:	NP_001005464
UniProt:	Q71DI3

Application Details

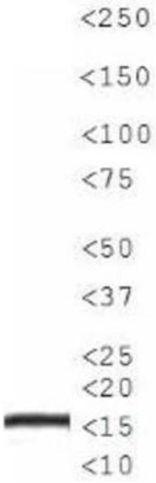
Application Notes:	Immunohistochemistry Dilution: 1:100 Application Note: Anti-Histone H3 [Asym-dimethyl Arg17] antibody is tested for Western Blot, Chromatin Immunoprecipitation, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~15.4 kDa corresponding to Histone H3 protein by Western Blotting in HeLa histone prep lysate or the appropriate cell lysate or extract. Epi-Plus™ antibody production in collaboration with Novus Biologicals.

Application Details

	ChIP Dilution: 2-5 µg/million cells Western Blot Dilution: 1:500 IF Microscopy Dilution: 1:100 Other: user optimized
Restrictions:	For Research Use only

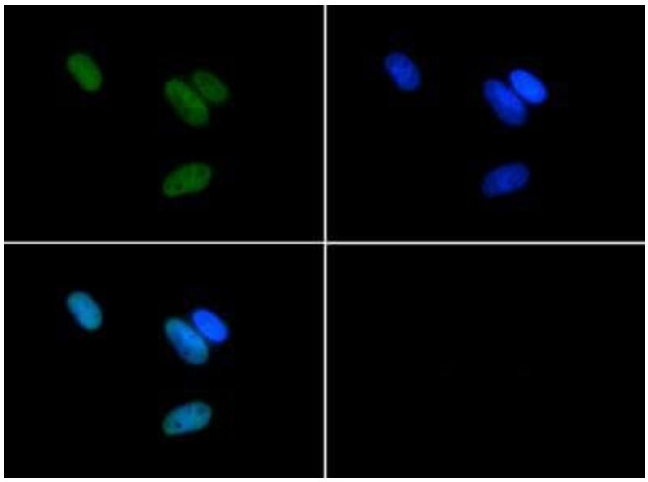
Handling

Format:	Liquid
Concentration:	0.83 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: 30 % Glycerol Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	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.
Expiry Date:	12 months



Western Blotting

Image 1. Western Blot of Rabbit Anti-Histone H3 [Asym-dimethyl Arg17] Antibody. Lane 1: NIH-3T3 histone prep cell lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [Asym-dimethyl Arg17] 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.



Fluorescence Microscopy

Image 2. Immunofluorescence of Rabbit Anti-Histone H3 [Asym-dimethyl Arg17] Antibody. Tissue: HeLa cells. Fixation: 0.5 % PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [Asym-dimethyl Arg17] 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 [Asym-dimethyl Arg17] is nuclear and chromosomal. Staining: Histone H3 [Asym-dimethyl Arg17] is expressed in green, nuclei are counterstained with Dapi (blue).

Western Blotting

Image 3. Western Blot of Rabbit Anti-Histone H3 [Asym-dimethyl Arg17] Antibody. Lane 1: C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [Asym-dimethyl Arg17] 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.

Please check the product details page for more images. Overall 4 images are available for ABIN5706789.