

Datasheet for ABIN5706772

## anti-Histone 3 antibody (H3K4me2, pThr3)



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### 4 Images

#### Overview

Quantity:	50 µg
Target:	Histone 3 (H3)
Binding Specificity:	H3K4me2, pThr3
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Histone 3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Chromatin Immunoprecipitation (ChIP), Dot Blot (DB), Multiplex Assay (MA), Fluorescence Microscopy (FM)

#### Product Details

Purpose:	Histone H3 K4me2/phospho T3 Antibody
Immunogen:	Immunogen: Histone H3 [Dimethyl Lys4, p Thr3] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with synthetic dimethylated/phosphorylated peptides surrounding Lysine 4 and Threonine 3 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 dimethyl Lys4 pT3 antibody, H3.3B, H3.3AH3F3H3F3B, H3

## Product Details

	histone, family 3A, histone H3.3, MGC87782, MGC87783, H3K4me2/pT3
Purification:	Anti-Histone H3 [Dimethyl Lys4, p Thr3] was affinity purified from monospecific antiserum by immunoaffinity chromatography.
Sterility:	Sterile filtered

## Target Details

Target:	Histone 3 (H3)
Alternative Name:	Histone H3 ( <a href="#">H3 Products</a> )
Background:	<p>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. Specifically, the dimethylation of H3 lysine 4 (H3 K4Me2) and phosphorylation of threonine 3 (H3 pT3) are known marks of transcriptional activation and mitosis, respectively. While H3K4 has many known modifying enzymes (Set1, Set7/9, MLL, ASH1), Haspin is the only known modifier for H3T3. Recent findings also demonstrate that pT3 can promote binding of survivin in the nucleosome. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.</p>
Gene ID:	126961
NCBI Accession:	<a href="#">NP_001005464</a>
UniProt:	<a href="#">Q71DI3</a>

## Application Details

Application Notes:	<p>Immunohistochemistry Dilution: 1:50</p> <p>Application Note: Anti-Histone H3 [Dimethyl Lys4, p Thr3] antibody is tested for Western Blot, Immunocytochemistry/Immunofluorescence, Chromatin Immunoprecipitation, and Dot Blot.</p> <p>Specific conditions for reactivity should be optimized by the end user. Expect a band</p>
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## Application Details

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.

ChIP Dilution: 2-5 µg/million cells

Western Blot Dilution: 1:500

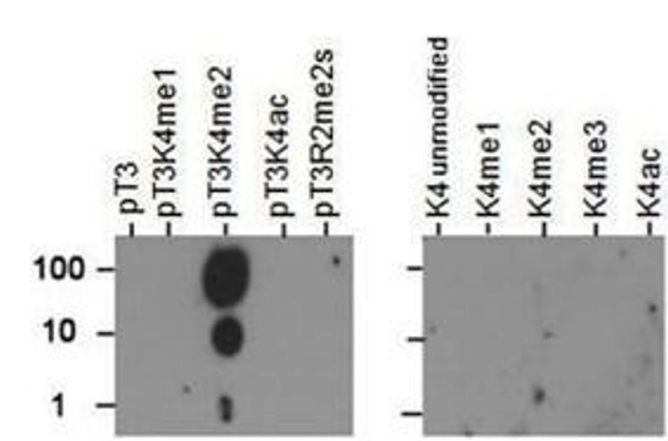
IF Microscopy Dilution: 1:50

Other: Dot Blot 1:1000

Restrictions: For Research Use only

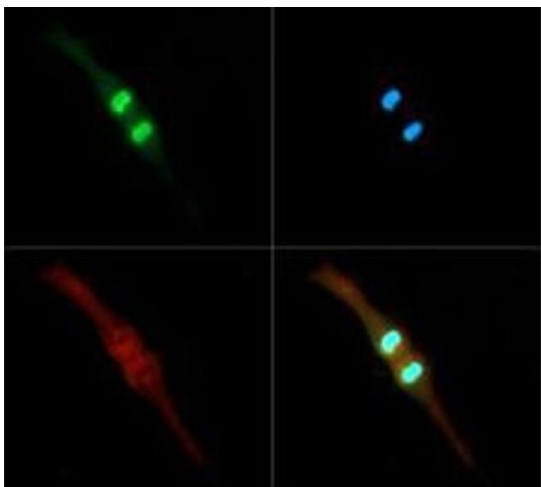
## Handling

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



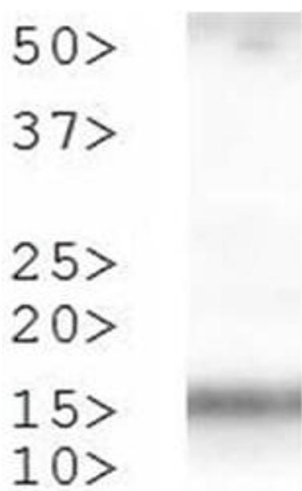
#### Dot Blot

**Image 1.** Dot Blot of Rabbit Histone H3 [p Thr3, Dimethyl Lys4] Antibody. Antigen: Methylated forms of the immunizing peptide. Load: 1, 10, and 100 picomoles of peptide. Primary antibody: Histone H3 [p Thr3, Dimethyl 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.



#### Fluorescence Microscopy

**Image 2.** Immunofluorescence Microscopy of Rabbit Anti-Histone H3 [p Thr3, Dimethyl Lys4] Antibody. Tissue: HeLa cells. Fixation: 0.5 % PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [p Thr3, Dimethyl Lys4] antibody at a 1:50 dilution for 1 h at RT. Secondary antibody: Dylight 488 secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3 [p Thr3, Monomethyl Lys4] is nuclear and chromosomal. Staining: Histone H3 [p Thr3, Dimethyl Lys4] is expressed in green while the nuclei and alpha-tubulin were coexpressed with DAPI (blue) and Dylight 550 (red).



#### Western Blotting

**Image 3.** Western Blot of Rabbit Anti-Histone H3 [p Thr3, Dimethyl Lys4] Antibody. Lane 1: NIH-3T3 histone prep lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [p Thr3, Dimethyl Lys4] at 1:50 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 ABIN5706772.