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Datasheet for 600-401-P14

Histone H3 pT3/R2me2s Antibody

Overview

Description:	Anti-Histone H3 [p Thr3, Sym-dimethyl Arg2] (RABBIT) Antibody - 600-401-P14
Item No.:	600-401-P14
Size:	50 µg
Applications:	Dot Blot, IF, WB
Reactivity:	Human, Mouse, Monkey
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. In particular phosphorylation of threonine 3 (H3 pT3) is a known mark of mitosis. Recent findings also demonstrate that pT3 can promote binding of survivin in the nucleosome. Arg2 may have opposing effects to pT3. Anti-Histone H3 pT3/R2Me2s is ideal for researchers Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.
Synonyms:	rabbit anti-Histone H3 pT3 Sym-dimethyl Arg2 antibody, Histone H3 pT3 dimethyl R2s, Histone H3 pT3/R2Me2s, Histone H3 antibodies
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	HIST2H3C

Reactivity:	Human, Mouse, Monkey
PTM Specificity:	Dual Modification
Immunogen Type:	Conjugated Peptide
Immunogen:	Histone H3 pT3/R2Me2s affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide surrounding the pT3 and R2Me2s site of human Histone H3.
Purity/Specificity:	Anti-Histone H3 pT3/R2Me2s 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 • GeneID - 126961 • NCBI - NP_001005464.1

Application Details

Tested Applications:	Dot Blot, IF, WB
Application Note:	Anti-Histone H3 pT3/R2Me2s antibody is tested in Western Blot, Immunocytochemistry, and Dot Blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~15kDa corresponding to 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.
IF:	1:50-1:100
WB:	1 µg/mL
Other:	Dot Blot 1:1000

Formulation

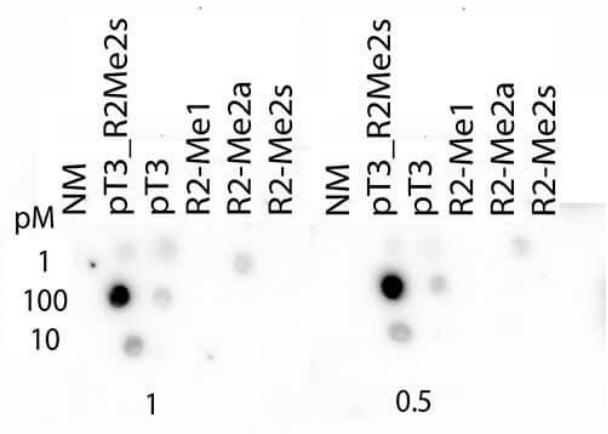
Physical State:	Liquid (sterile filtered)
Concentration:	0.21 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Stabilizer:	30% Glycerol

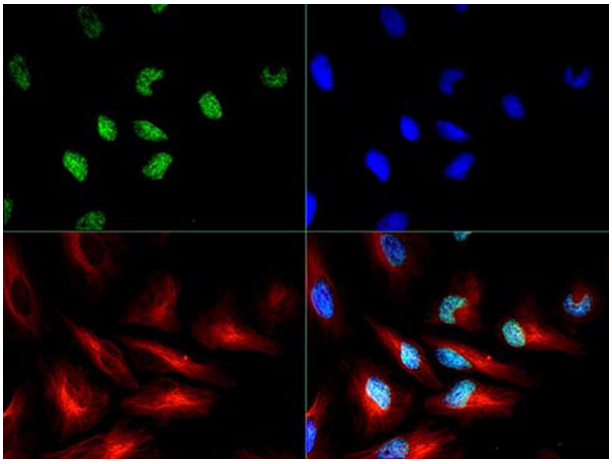
Shipping & Handling

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.

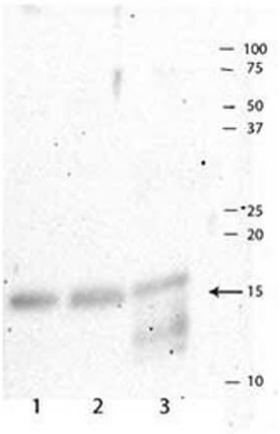
Images



Dot Blot
Dot Blot of Rabbit Histone H3 pT3/R2Me2s Antibody. Lane 1: Unmodified. Lane 2: pT3/R2Me2s. Lane 3: pT3. Lane 4: R2Me1. Lane 5: R2Me2a. Lane 6: R2Me2s. Load: 1, 10, and 100 picomoles of peptide. Primary antibody: Histone H3 pT3/R2Me2s antibody at 1:1000 for 45 min at 4°C. Secondary antibody: RABBIT IgG (H&L) Secondary Antibody Peroxidase Conjugated Pre-adsorbed (p/n 611-103-122) at 1:40,000 for 30 min at RT. Block: 5% BLOTTO (B501) for 30 minutes at RT.



Immunofluorescence Microscopy
Immunofluorescence of Rabbit Histone H3 pT3/R2Me2s. Histone H3 pT3/R2Me2s antibody was tested at 1:50 in HeLa cells with FITC (green). Nuclei were counterstained with DAPI (blue).



Western Blot

Western Blot of Histone H3 pT3/R2Me2s (RABBIT) Antibody. Western Blot analysis against untreated cell extracts, 5 minute exposure. Lane 1: HeLa cell lysates (p/n W09-000-364). Lane 2: NIH/3T3 cell lysates (p/n W10-000-358). Lane 3: Cos 7 cell lysates. Load: 35 µg per lane. Primary antibody: Histone H3 pT3/R2Me2s antibody at 1µg/mL for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO (B501) overnight at 4°C. Predicted/Observed size: 15 kDa for Histone H3 [pT3/R2Me2s].

Disclaimer

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