

## **Product datasheet for TA397476**

## **H3C14 Rabbit Polyclonal Antibody**

## **Product data:**

Product Type: Primary Antibodies

Applications: ChIP, IF, IHC, WB

Recommended Dilution: WB: 1:500-1:1000

**IHC**: 1:200 **IF**: 1:200

CHiP: 2-5µg/million cells

**Reactivity:** C. elegans, Human, Mouse

**Host:** Rabbit

**Clonality:** Polyclonal

Immunogen: Histone H3 [p Thr6, Monomethyl Lys9] affinity purified antibody was prepared from whole

rabbit serum produced by repeated immunizations with a synthetic

monomethylated/phosphorylated peptide surrounding Lysine 9/Threonine 6 of human

Histone H3.2.

**Specificity:** Anti-Histone H3 [p Thr6, Monomethyl Lys9] 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.

**Formulation:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Concentration:** 0.85 mg/ml - lot specific

**Conjugation:** Unconjugated

Storage: 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.

**Stability:** Expiration date is one (1) year from date of receipt.

**Gene Name:** histone cluster 2, H3c



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Database Link: <u>Entrez Gene 333932 HumanEntrez Gene 126961 Human</u>

Q71DI3

**Background:** Methylation of Histone H3 at Lys9 (K9) is an epigenetic silencer of transcription. Gene

silencing from histone post translational modifications, as well as DNA methylation, play a key role in the development of normal tissues. If this silencing is disturbed through the artificial silencing of RIZ1, and thereby H3 K9Me1, it has been shown that normal apoptotic processes in precancerous cells can be reduced. Interestingly, data indicates that the conversion of the monomethyl to the trimethyl form requires mediation by SUVR4 in transposons and pseudogenes. Research also indicates that the presence of the G9a/GLP heterodimeric complex is required for this modification to exist. The additional phosphorylation at Thr6 (pT6) affects the ability of other proteins to bind to the H3 tail, along with amplifying the effects of other histone PTMs that are present. Because T6 phosphorylation is constitutive, its dephosphorylation may play a key role in DNA transcription, repair and replication. 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 pT6 monomethyl Lys9 antibody, H3.3B, H3 histone, family 3A,

H3.3AH3F3H3F3B, histone H3.3, MGC87783, MGC87782, H3K9me1/pT6

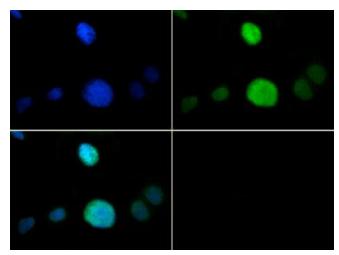
**Note:** Anti-Histone H3 [p Thr6, Monomethyl Lys9] antibody is tested for Western Blot,

Immunocytochemistry, Immunofluorescence, Chromatin Immunoprecipitation, and Dot Blot. 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.

**Protein Pathways:** Systemic lupus erythematosus

## **Product images:**



Immunofluorescence of Rabbit Anti-Histone H3 [p Thr6, Monomethyl Lys9] Antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [p Thr6, Monomethyl Lys9] 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 [p Thr6, Monomethyl Lys9] is nuclear and chromosomal. Staining: Histone H3 [p Thr6, Monomethyl Lys9] is expressed in green and the nuclei are counterstained with DAPI (blue).