10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Histone H3 [Dimethyl Lys4] (RABBIT) Antibody
Histone H3 K4me2 Antibody
Catalog # ASR5618

Specification

Anti-Histone H3 [Dimethyl Lys4] (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Polyclonal**
Application	**WB, IHC, I, LCI**
Application Note	**Anti-Histone H3 [Dimethyl Lys4] antibody is tested in Western Blot, Immunofluorescence, Chromatin Immunoprecipitation, and Dot Blot. This antibody is useful in Immunocytochemistry. 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.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Histone H3 [Dimethyl Lys4] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic dimethylated peptide surrounding Lysine 4 of human Histone H3.2.**
Stabilizer	**30% Glycerol**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-Histone H3 [Dimethyl Lys4] (RABBIT) Antibody - Additional Information

Gene ID 126961;333932;653604

Other Names
126961

Purity
Anti-Histone H3 [Dimethyl Lys4] 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.

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.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Histone H3 [Dimethyl Lys4] (RABBIT) Antibody - Protein Information

Name H3C15 (HGNC:20505)

Function
Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling.

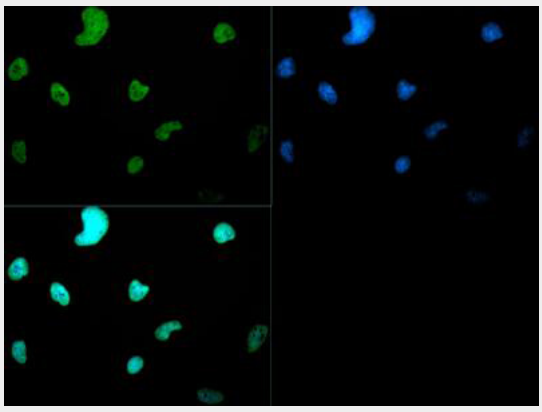
Cellular Location
Nucleus. Chromosome.

Anti-Histone H3 [Dimethyl Lys4] (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Histone H3 [Dimethyl Lys4] (RABBIT) Antibody - Images



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Immunofluorescence of Rabbit Anti-Histone H3 [Dimethyl Lys4] Antibody. Tissue: C. elegans embryo lysate. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [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 [Dimethyl Lys4] is nuclear and chromosomal. Staining: Histone H3 [Dimethyl Lys4] is expressed in green and the nuclei are counterstained blue with DAPI.

Anti-Histone H3 [Dimethyl Lys4] (RABBIT) Antibody - Background

H3K4me2 is a modification thought to have a role in transcriptional memory. In CD4+ T lymphocytes, H3K4Me2 is present within gene bodies regulating cellular function, but not in those of housekeeping genes, which indicates that the modification has a role in refining the tissue-specificity of expressed genes. This type of cellular identity targeting is also noted in work with human and mouse spermatozoa; the H3K4Me2 modification marks genes that are relevant in spermatogenesis. Most effects of H3K4Me2 seem to be attributed to its transcriptional activation; however, recent work also indicates that it may also play an RNA-dependent regressive role, related to the GAL-1 promoter. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics Research.