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Anti-Histone H3 [Asym-dimethyl Arg2] (RABBIT) Antibody
Histone H3 R2me2a Antibody
Catalog # ASR5613

Specification

Anti-Histone H3 [Asym-dimethyl Arg2] (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 [Asym-dimethyl Arg2] antibody is tested by Western Blot, Dot Blot, 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.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Histone H3 [Asym-dimethyl Arg2] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic dimethylated peptide surrounding Arginine 2 of human Histone H3.2.**
Stabilizer	**30% Glycerol**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-Histone H3 [Asym-dimethyl Arg2] (RABBIT) Antibody - Additional Information

Gene ID 126961;333932;653604

Other Names
126961

Purity
Anti-Histone H3 [Asym-dimethyl Arg2] 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 [Asym-dimethyl Arg2] (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.

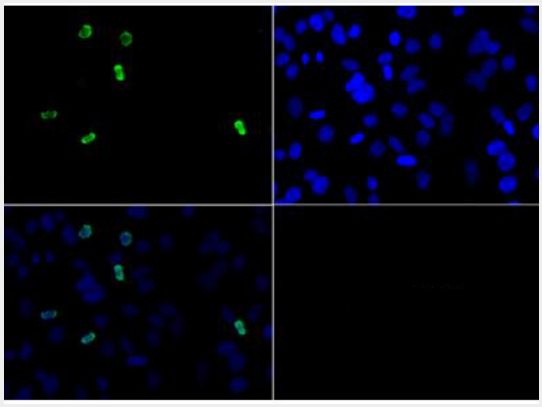
Cellular Location
Nucleus. Chromosome.

Anti-Histone H3 [Asym-dimethyl Arg2] (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 [Asym-dimethyl Arg2] (RABBIT) Antibody - Images



Immunofluorescence Microscopy of Rabbit Anti-Histone H3 [Asym-dimethyl Arg2] Antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone

H3 [Asym-dimethyl Arg2] antibody at a 1:100 dilution for 1 h at RT. Secondary antibody: Dylight 488 secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3 [Asym-dimethyl Arg2] is nuclear and chromosomal. Staining: Histone H3 [Asym-dimethyl Arg2] is expressed in green while the nuclei were counterstained with DAPI (blue).

Anti-Histone H3 [Asym-dimethyl Arg2] (RABBIT) Antibody - Background

When Set1 attempts to methylate H3K4, epigenetic silencing of downstream genes is mediated by dimethylation of histone H3 at Arg2. This modification is typically found in heterochromatin and inactive genes, and is not found when trimethylation of Arg2 is observed. Conversion from mono-, di- and tri-methyl forms of H3R2 is mediated through the activity of the arginine methyltransferase PRMT6. H3K4 cannot be methylated when the asymmetric H3R2me2 mark is present. In active promoters, this modification is actively eliminated. H3R2me2a prevents WDR5 recognition, MLL methyltransferase recruitment, and H3K4 methylation. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.