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Anti-Histone H3 [Asym-dimethyl Arg17] (RABBIT) Antibody
Histone H3 R17me2a Antibody
Catalog # ASR5637

Specification

Anti-Histone H3 [Asym-dimethyl Arg17] (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human, Mouse**
Clonality	**Polyclonal**
Application	**WB, IHC, I, LCI**
Application Note	**Anti-Histone H3 [Asym-dimethyl Arg17] antibody is tested for Western Blot, Chromatin Immunoprecipitation, 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 Arg17] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic asymmetric dimethylated peptide surrounding Arginine 17 of human Histone H3.2.**
Stabilizer	**30% Glycerol**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-Histone H3 [Asym-dimethyl Arg17] (RABBIT) Antibody - Additional Information

Gene ID 126961;333932;653604

Other Names
126961

Purity
Anti-Histone H3 [Asym-dimethyl Arg17] 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 Arg17] (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.

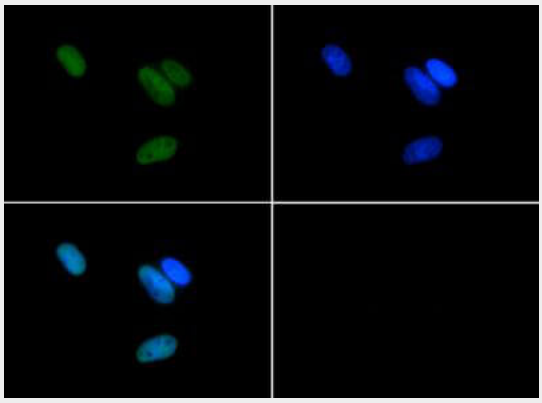
Cellular Location
Nucleus. Chromosome.

Anti-Histone H3 [Asym-dimethyl Arg17] (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 Arg17] (RABBIT) Antibody - Images



Immunofluorescence of Rabbit Anti-Histone H3 [Asym-dimethyl Arg17] Antibody. Tissue: HeLa

cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H3 [Asym-dimethyl Arg17] 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 [Asym-dimethyl Arg17] is nuclear and chromosomal. Staining: Histone H3 [Asym-dimethyl Arg17] is expressed in green, nuclei are counterstained with Dapi (blue).

Anti-Histone H3 [Asym-dimethyl Arg17] (RABBIT) Antibody - 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, dimetylation of H3 Arg17 (H3 R17Me2) has been linked to gene activation. Coactivator-associated arginine methyltransferase-1 (CARM1) methylates Arg17 with its protein arginine methyltransferase (PRMT) catalytic core. Activation of this modification is linked to transcription hormone response promotors, as well as cell fate regulation. Interestingly, H3 methylation of R17 and R26 contributes to greater pluripotency potential of stem cells, while downregulation of this PTM increases differentiation. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.