

**Anti-Histone H3 [Monomethyl Lys79] (RABBIT) Antibody**  
**Histone H3 K79-Me1 Antibody**  
**Catalog # ASR5769****Specification**

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**Anti-Histone H3 [Monomethyl Lys79] (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human, Mouse, Monkey
Clonality	Polyclonal
Application	WB, I, LCI
Application Note	Anti-Histone H3 K79-Me1 antibody is tested in Western Blot, ChIP, Immunofluorescence, 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.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	Histone H3 K79-Me1 affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide surrounding the Lys79 site of human Histone H3.
Stabilizer	30% Glycerol
Preservative	0.01% (w/v) Sodium Azide

**Anti-Histone H3 [Monomethyl Lys79] (RABBIT) Antibody - Additional Information****Gene ID** 3020;3021**Other Names**  
3020**Purity**

Anti-Histone H3 [Monomethyl Lys79] 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.

**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 [Monomethyl Lys79] (RABBIT) Antibody - Protein Information**

**Name** H3-3A ([HGNC:4764](#))

**Synonyms** H3.3A, H3F3, H3F3A

**Function**

Variant histone H3 which replaces conventional H3 in a wide range of nucleosomes in active genes. Constitutes the predominant form of histone H3 in non-dividing cells and is incorporated into chromatin independently of DNA synthesis. Deposited at sites of nucleosomal displacement throughout transcribed genes, suggesting that it represents an epigenetic imprint of transcriptionally active chromatin. 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.

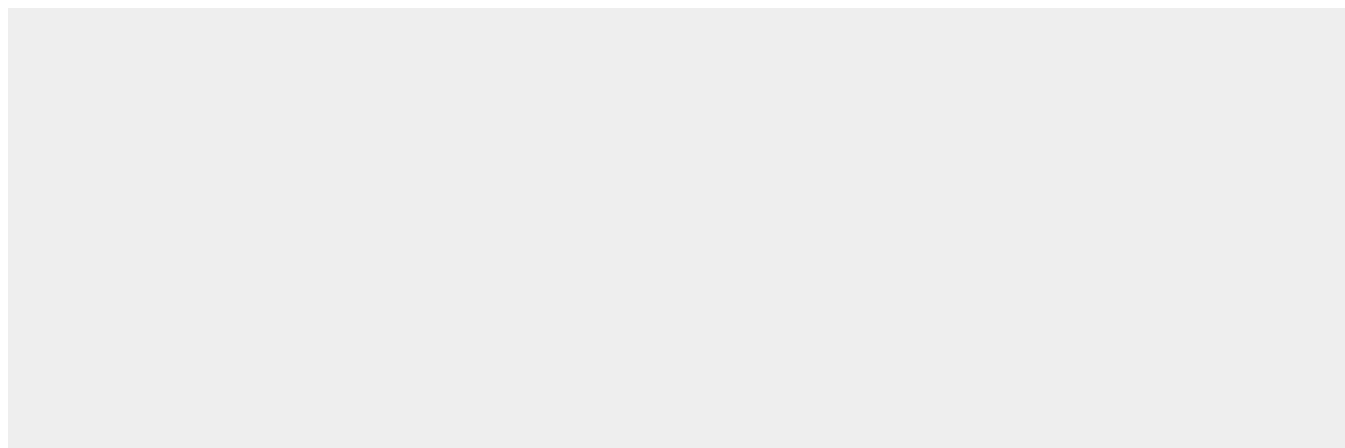
**Cellular Location**

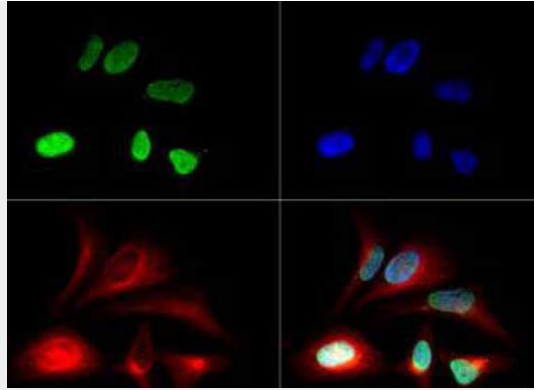
Nucleus. Chromosome

**Anti-Histone H3 [Monomethyl Lys79] (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 Cytometry](#)
- [Cell Culture](#)

**Anti-Histone H3 [Monomethyl Lys79] (RABBIT) Antibody - Images**



Immunofluorescence of Histone H3 [monomethyl Lys79-Me1]: Histone H3 K79me1 antibody was tested in Hela cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).

### **Anti-Histone H3 [Monomethyl Lys79] (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 Lys79 methylations are involved in transcriptional activation, and has been found to be inversely correlated with H2B ubiquitination. Anti-Histone H3 K79-Me1 antibody is ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.