

**Histone H3-K9 Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP9934a****Specification**

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**Histone H3-K9 Antibody - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">P84243</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**Histone H3-K9 Antibody - Additional Information****Gene ID** 3020;3021**Other Names**

Histone H33, H3F3A, H33A, H3F3

**Target/Specificity**

This Histone H3-K9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the K9 region of human histone H3.

**Dilution**

WB~~1:1000

IHC-P~~1:50~100

FC~~1:10~50

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Histone H3-K9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Histone H3-K9 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**

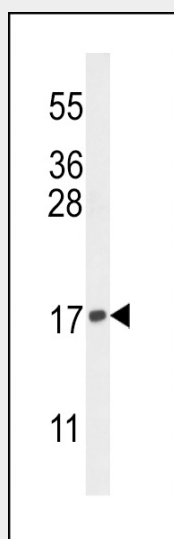
Nucleus. Chromosome

### **Histone H3-K9 Antibody - Protocols**

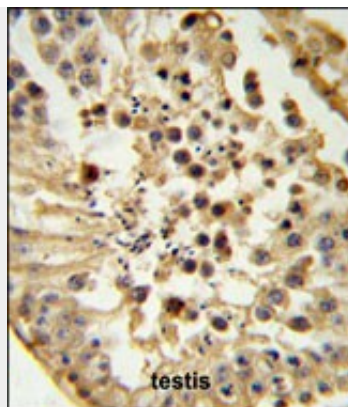
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

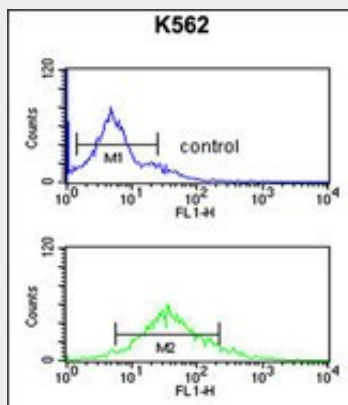
### **Histone H3-K9 Antibody - Images**



Western blot analysis of Methyl-K-H3-K9(2Me)-4MAPS (Cat. #AP9934a) in K562 cell line lysates (35ug/lane). H3 (arrow) was detected using the purified Pab.



Histone H3-K9 Antibody (Cat. #AP9934a) IHC analysis in formalin fixed and paraffin embedded testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the Histone H3-K9 Antibody for immunohistochemistry. Clinical relevance has not been evaluated.



Histone H3-K9 Antibody (Cat. #AP9934a) flow cytometric analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### Histone H3-K9 Antibody - Background

Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrapped around a nucleosome, an octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. This gene for histone H3-MeK9 is intronless and encodes a member of the histone H3 family. Transcripts from this gene lack polyA tails; instead, they contain a palindromic termination element. This gene is found in the large histone gene cluster on chromosome 6p22-p21.3.

### Histone H3-K9 Antibody - References

- Teng, H., et al. J. Biol. Chem. 284(39):26368-26376(2009)
- Garcia, B.A., et al. J. Biol. Chem. 282(10):7641-7655(2007)
- Morris, S.A., et al. J. Biol. Chem. 282(10):7632-7640(2007)
- Loyola, A., et al. Mol. Cell 24(2):309-316(2006)
- Kim, S.C., et al. Mol. Cell 23(4):607-618(2006)