

# Histone H3K9 Methylation Antibody Panel Pack

Base Catalog # C10006

## PACK CONTENTS

Component	Size	Shipping Temperature	Storage Upon Receipt	Storage Checklist
<b>3K9M</b> Histone H3K9me1 (H3K9 Monomethyl) Polyclonal Antibody	25 µl	4°C	-20°C	
<b>3K9D</b> Histone H3K9me2 (H3K9 Dimethyl) Polyclonal Antibody	25 µl	4°C	-20°C	
<b>3K9T</b> Histone H3K9me3 (H3K9 Trimethyl) Polyclonal Antibody	25 µl	4°C	-20°C	
<b>HGR2</b> HRP-Goat Anti-Rabbit Secondary Antibody	50 µg	4°C	-20°C	

## SHIPPING & STORAGE

This product is shipped on frozen ice packs at 4°C. Upon receipt: (1) Store **3K9M**, **3K9D**, **3K9T**, and **HGR2** at -20°C away from light.

All components of the product are stable for 6 months from the date of shipment, when stored properly.

---

## Histone H3K9me1 (H3K9 Monomethyl) Polyclonal Antibody

Component Catalog # C10006-1-3K9M

---

### Background

Modulation of chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of DNA wound around eight core histone proteins (two each of H2A, H2B, H3, and H4), is the primary building block of chromatin. The amino-terminal tails of core histones undergo various post-translational modifications, including acetylation, phosphorylation, methylation, and ubiquitination. These modifications occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression. In most species, histone H2B is primarily acetylated at Lys5, 12, 15, and 20. Histone H3 is primarily acetylated at Lys9, 14, 18, 23, 27, and 56. Acetylation of H3 at Lys9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms. Phosphorylation at Ser10, Ser28, and Thr11 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis. Phosphorylation at Thr3 of histone H3 is highly conserved among many species and is catalyzed by the kinase haspin. Immunostaining with phospho-specific antibodies in mammalian cells reveals mitotic phosphorylation at Thr3 of H3 in prophase and its dephosphorylation during anaphase.

### Description

Histone H3K9me1 (H3K9 Monomethyl) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

### Formulation

PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

### Specificity

Broad Range, Mouse, Rat, Human

### Isotype

IgG

### Uniprot ID

Q16695

### Purification

Affinity Purified

### Immunogen

A synthetic monomethylated peptide around K9 of human histone H3 (NP\_003520.1)

### Storage

Shipped at 4°C. Upon receipt, store at -20°C. Avoid repeated freeze.

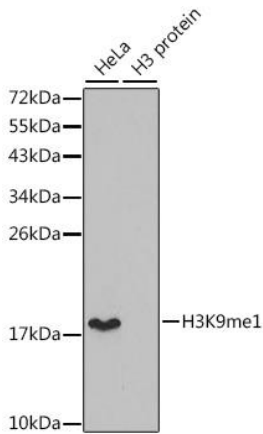
### Alternative Names

HIST1H3J; H3/j; H3FJ; Histone H3.1; Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d; Histone H3/f; Histone H3/h; Histone H3/l; Histone H3/j; Histone H3/k; Histone H3/l; HIST3H3

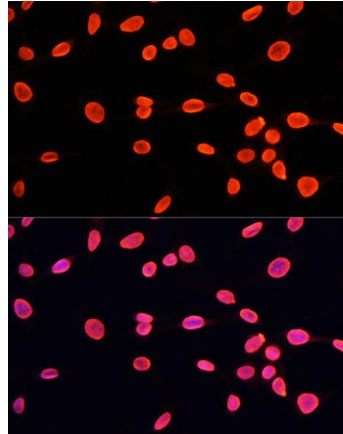
### Application

WB, IF, IP, ChIP, ChIP-seq; Recommended dilution: WB 1:500 - 1:2000, IF 1:50 - 1:200, IP 1:50 - 1:200, ChIP 1:20 - 1:100, ChIP-seq 1:20 - 1:100

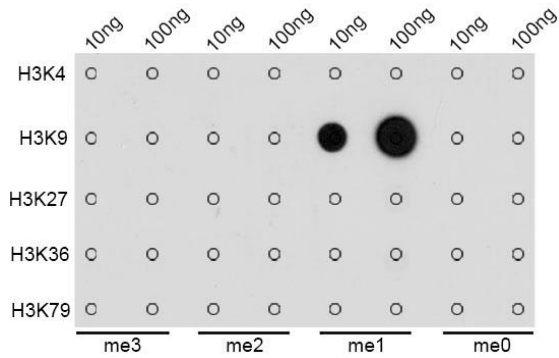
---



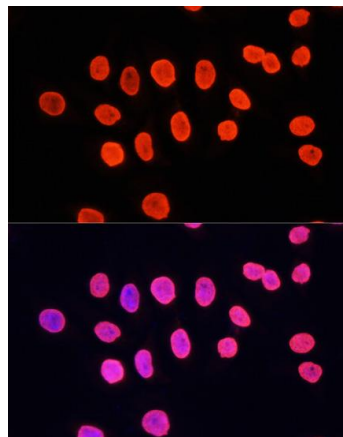
WB of extracts of various cell lines, using H3K9me1 antibody. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST.



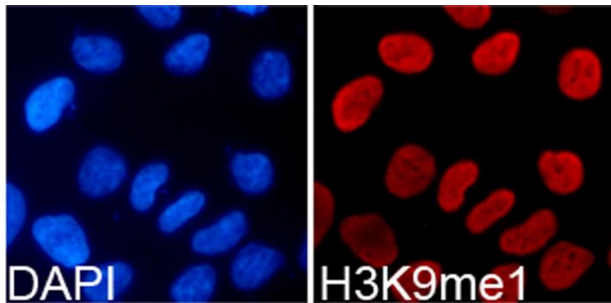
IF analysis of C6 cells using H3K9me1 antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



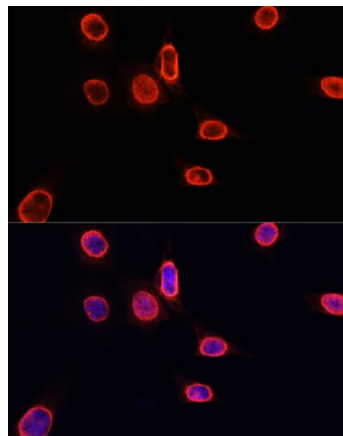
Dot-blot analysis of all sorts of methylation peptides using H3K9me1 antibody.



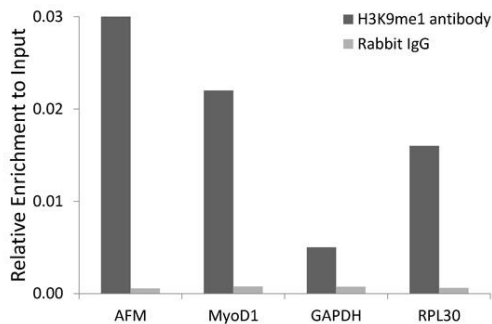
IF analysis of HeLa cells using H3K9me1 antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of 293T cells using H3K9me1 antibody. Blue: DAPI for nuclear staining.



IF analysis of NIH/3T3 cells using H3K9me1 antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Chromatin immunoprecipitation analysis of extracts of 293 cell line, using H3K9me1 antibody and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

## Histone H3K9me2 (H3K9 Dimethyl) Polyclonal Antibody

Component Catalog # C10006-1-3K9D

### Background

Modulation of chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of DNA wound around eight core histone proteins (two each of H2A, H2B, H3, and H4), is the primary building block of chromatin. The amino-terminal tails of core histones undergo various post-translational modifications, including acetylation, phosphorylation, methylation, and ubiquitination. These modifications occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression. In most species, histone H2B is primarily acetylated at Lys5, 12, 15, and 20. Histone H3 is primarily acetylated at Lys9, 14, 18, 23, 27, and 56. Acetylation of H3 at Lys9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms. Phosphorylation at Ser10, Ser28, and Thr11 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis. Phosphorylation at Thr3 of histone H3 is highly conserved among many species and is catalyzed by the kinase haspin. Immunostaining with phospho-specific antibodies in mammalian cells reveals mitotic phosphorylation at Thr3 of H3 in prophase and its dephosphorylation during anaphase.

### Description

Histone H3K9me2 (H3K9 Dimethyl) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

### Formulation

Buffer: PBS with 0.01% thiomersal, 50% glycerol, pH7.3

### Specificity

Broad Range, Mouse, Rat, Human

### Isotype

IgG

### Uniprot ID

Q16695

### Purification

Affinity Purified

### Immunogen

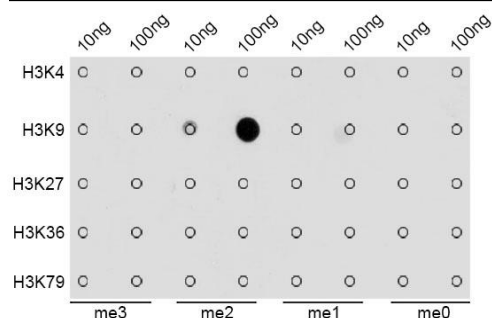
A synthetic dimethylated peptide around K9 of human histone H3 (NP\_003520.1)

### Storage

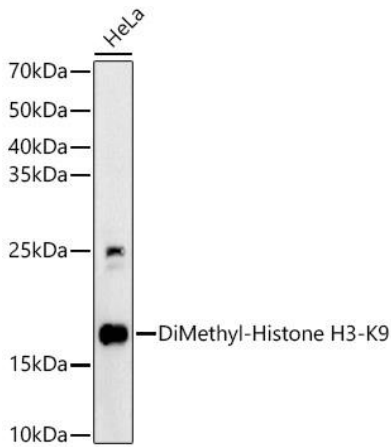
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

### Application

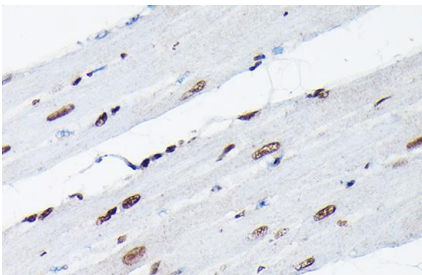
WB, IHC, IF/ICC, IP, ChIP, ChIPseq; Recommended dilution: WB 1:500 - 1:1000, IHC 1:50 - 1:200, IF/ICC 1:50 - 1:200, IP 1:50 - 1:200, ChIP 1:50 - 1:200, ChIP-seq 1:50 - 1:200



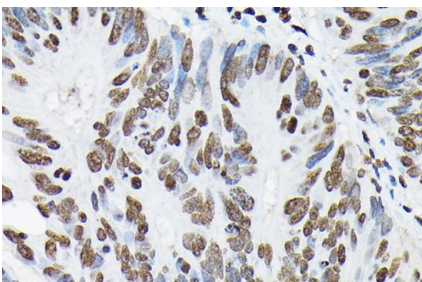
Dot-blot analysis of all sorts of methylation peptides using Histone H3K9me2 pAb.



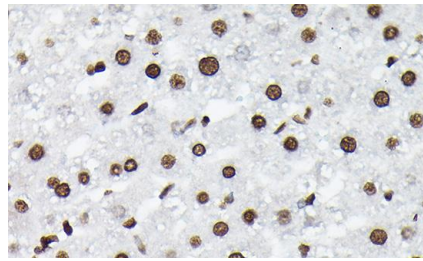
WB analysis of HeLa, using Histone H3K9me2 pAb at 1:600 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST.



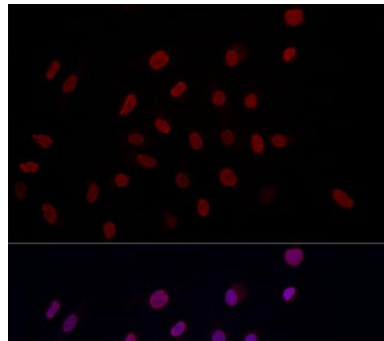
Immunohistochemistry of paraffin-embedded rat heart using Histone H3K9me2 pAb at dilution of 1:50 (40x lens). Performed high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



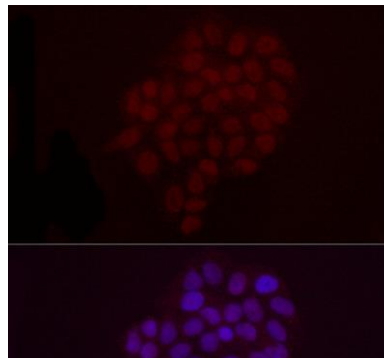
Immunohistochemistry of paraffin-embedded human colon carcinoma using Histone H3K9me2 pAb at dilution of 1:50 (40x lens). Performed high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



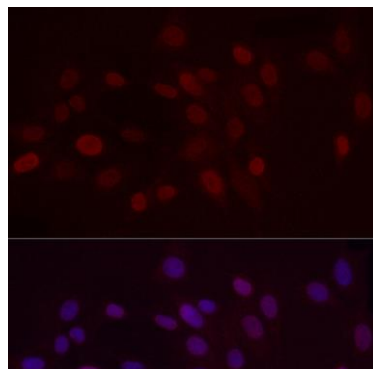
Immunohistochemistry of paraffin-embedded mouse liver using Histone H3K9me2 pAb at dilution of 1:50 (40x lens). Performed high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



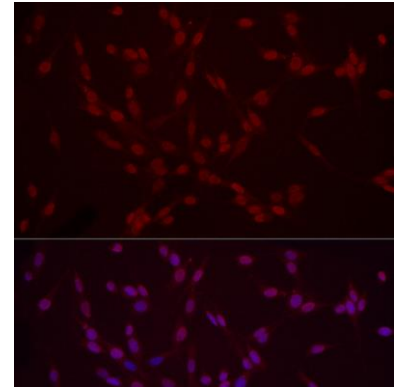
Immunofluorescence analysis of A-549 cells using Histone H3K9me2 pAb at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



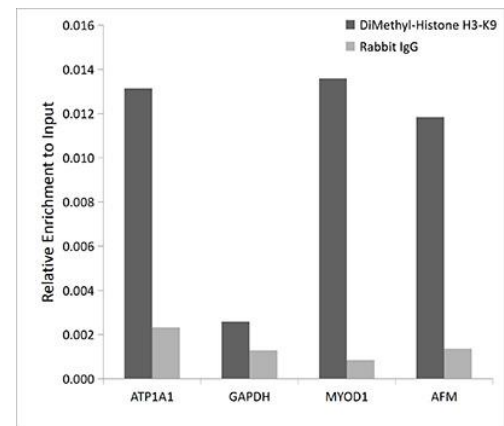
Immunofluorescence analysis of HeLa cells using Histone H3K9me2 pAb at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH/3T3 cells using Histone H3K9me2 pAb at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of PC-12 cells using Histone H3K9me2 pAb at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



Chromatin immunoprecipitation analysis of extracts of HeLa cells, using Histone H3K9me2 pAb and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input

---

## Histone H3K9me3 (H3K9 Trimethyl) Polyclonal Antibody

Component Catalog # C10006-1-3K9T

---

### Background

Modulation of chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of DNA wound around eight core histone proteins (two each of H2A, H2B, H3, and H4), is the primary building block of chromatin (1). The amino-terminal tails of core histones undergo various post-translational modifications, including acetylation, phosphorylation, methylation, and ubiquitination (2-5). These modifications occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression (6). In most species, histone H2B is primarily acetylated at Lys5, 12, 15, and 20 (4,7). Histone H3 is primarily acetylated at Lys9, 14, 18, 23, 27, and 56. Acetylation of H3 at Lys9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms (2,3). Phosphorylation at Ser10, Ser28, and Thr11 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis (8-10). Phosphorylation at Thr3 of histone H3 is highly conserved among many species and is catalyzed by the kinase haspin. Immunostaining with phospho-specific antibodies in mammalian cells reveals mitotic phosphorylation at Thr3 of H3 in prophase and its dephosphorylation during anaphase (11).

### Description

Histone H3K9me3 (H3K9 Trimethyl) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

### Formulation

PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

### Specificity

Broad Range, Mouse, Rat, Human

### Isotype

IgG

### Uniprot ID

Q16695

### Purification

Affinity Purified

### Immunogen

A synthetic trimethylated peptide around K9 of human histone H3 (NP\_003520.1)

### Storage

Shipped at 4°C. Upon receipt, store at -20°C. Avoid repeated freeze.

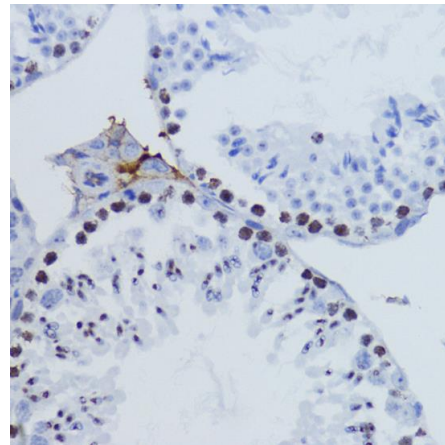
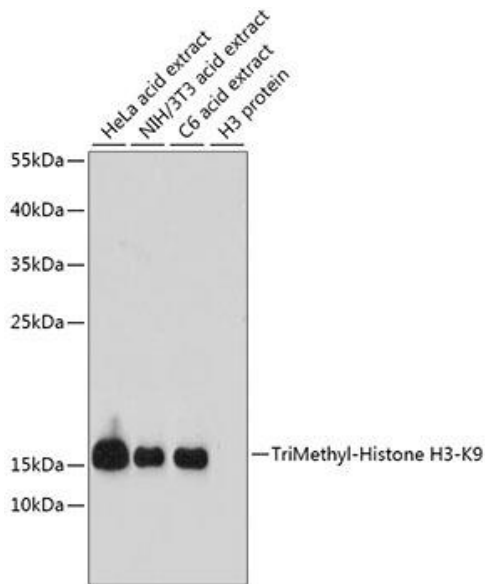
### Alternative Names

H3K9me3 antibody; H3K9m3 antibody; HIST1H3J; H3/j; H3FJ; Histone H3.1; Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d; Histone H3/f; Histone H3/h; Histone H3/i; Histone H3/j; Histone H3/k; Histone H3/l; HIST3H3

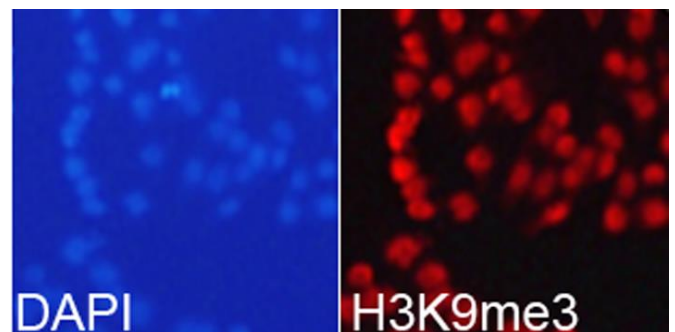
### Application

DB, WB, IHC, IF, ChIP; Recommended dilution: DB 1:500 - 1:2000, WB 1:500 - 1:2000, IHC 1:50 - 1:200, IF 1:50 - 1:200, ChIP 1:50 - 1:200

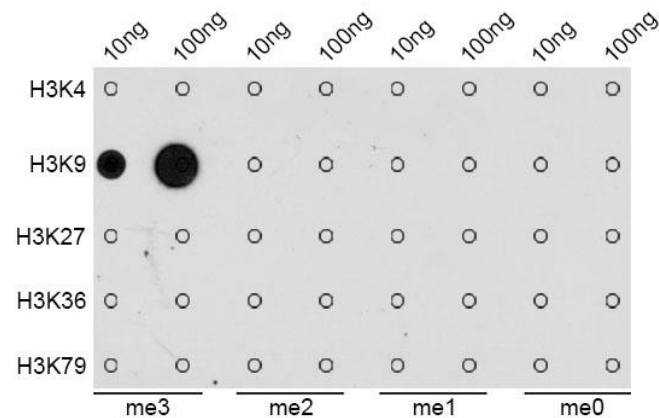
---



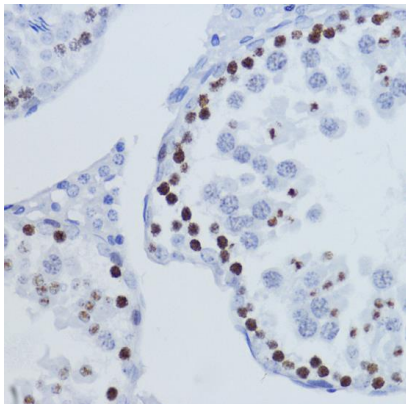
Immunohistochemistry of paraffin-embedded mouse testis using TriMethyl-Histone H3-K9 antibody at dilution of 1:200 (40x lens).



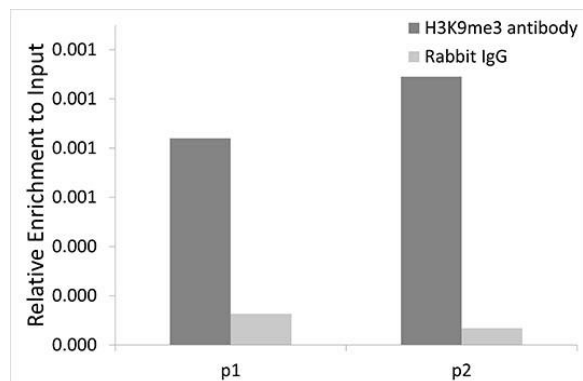
Immunofluorescence analysis of 293T cells using TriMethyl-Histone H3-K9 antibody. Blue: DAPI for nuclear staining.



Dot-blot analysis of all sorts of methylation peptides using TriMethyl-Histone H3-K9 antibody.



Immunohistochemistry of paraffin-embedded rat testis using TriMethyl-Histone H3-K9 antibody at dilution of 1:200 (40x lens).



Chromatin immunoprecipitation analysis of extracts of 293T cells, using TriMethyl-Histone H3-K9 antibody and rabbit IgG. P1 and P2 were located on EBAG9 gene. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

---

## HRP-Goat Anti-Rabbit Secondary Antibody

Component Catalog # C10006-1-HGR2

---

### Description

Goat anti-rabbit IgG recognizes rabbit IgG whole molecule. This secondary antibody was purified using antigen affinity chromatography. The antibody is conjugated with peroxidase.

### Antibody Type

Polyclonal Antibody

### Purification

Liquid; This product was prepared from monospecific antiserum by immunoaffinity chromatography, followed by solid phase adsorption(s) to remove any unwanted reactivities.

### Immunogen

Rabbit IgG whole molecule

### Isotype

IgG

### Formulation

In 10 mM sodium phosphate, 75 mM NaCl, 50% (v/v) glycerol, pH 7.2.

### Specificity

Rabbit

### Storage

Store at -20°C. Aliquot to avoid repeated freezing and thawing.

### Handling Recommendations

The optimal working dilution should be determined by the end user. For maximum recovery of the products, centrifuge the vial prior to opening the cap.

### Applications & Suggested Dilutions

Western Blot: 1:1000-1: 10000; Immunohistochemistry:1:100-1:500; Immunofluorescence: 1:100-1:500; ELISA: 1:2000-1:20000

---



## RELATED PRODUCTS

### Histone Modification Antibodies

A-4034	Histone H3K9me1 (H3K9 Monomethyl) Polyclonal Antibody
A-4035	Histone H3K9me2 (H3K9 Dimethyl) Polyclonal Antibody
A-4036	Histone H3K9me3 (H3K9 Trimethyl) Polyclonal Antibody
A12004	HRP-Goat Anti-Rabbit Secondary Antibody

### Histone Modification Panel Packs

C10000	Histone H3 Methylation Antibody Panel Pack I – Active Genes
C10001	Histone H3 Methylation Antibody Panel Pack I – Repression Genes
C10002	Histone H3 Methylation Antibody Panel Pack II – Active Genes
C10003	Histone H3 Methylation Antibody Panel Pack II – Repression Genes
C10004	Histone H3 Methylation Antibody Panel Pack III – Active Genes
C10005	Histone H3K4 Methylation Antibody Panel Pack
C10006	Histone H3K9 Methylation Antibody Panel Pack
C10007	Histone H3K27 Methylation Antibody Panel Pack
C10008	Histone H3K36 Methylation Antibody Panel Pack
C10009	Histone H3K79 Methylation Antibody Panel Pack
C10010	Histone H3 Acetylation Antibody Panel Pack I
C10011	Histone H3 Acetylation Antibody Panel Pack II
C10012	Histone H4K20 Methylation Antibody Panel Pack
C10013	Histone H4 Acetylation Antibody Panel Pack
C10014	Histone H3 Phosphorylation Antibody Panel Pack
C10015	Histone H3R2 Methylation Antibody Panel Pack
C10016	Histone H3R8 Methylation Antibody Panel Pack
C10017	Histone H3R17 Methylation Antibody Panel Pack
C10018	Histone H3R26 Methylation Antibody Panel Pack
C10019	Histone H4R3 Methylation Antibody Panel Pack