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## MonoMethyl-Histone H3-K9 Rabbit mAb

Catalog No.: A20734 Recombinant

## **Basic Information**

#### **Observed MW**

17kDa

### **Calculated MW**

16kDa

#### Category

SMab Recombinant Monoclonal Antibody

## **Applications**

WB,IHC-

P,IF/ICC,ChIP,ELISA,DB,CUT&Tag

## **Cross-Reactivity**

Human, Mouse, Rat, Other (Wide Range Predicted)

#### CloneNo number

ARC2677

## **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 is intronless and encodes a replication-dependent histone that is 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.

## **Immunogen Information**

Gene ID	Swiss Prot	
8290/8350	Q16695/P68431	

## Immunogen

Synthetic peptide. This information is considered to be commercially sensitive.

## **Synonyms**

H3/A; H3C2; H3C3; H3C4; H3C6; H3C7; H3C8; H3FA; H3C10; H3C11; H3C12; HIST1H3A; MonoMethyl-Histone H3-K9

## **Product Information**

Source	Isotype	Purification
Rabbit	IgG	Affinity purification

#### Storage

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

Buffer: PBS with 0.02% sodium azide, 0.05% BSA, 50% glycerol, pH7.3.

## **Recommended Dilutions**

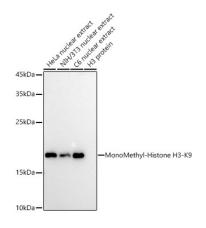
1:500 - 1:1000 **WB** DB 1:500 - 1:1000 1:500 - 1:1000 IHC-P IF/ICC 1:50 - 1:200 **ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements. **ChIP** 5µg antibody for

# CUT&Tag 10<sup>5</sup> cells /1 μg

5μg-10μg of Chromatin

## Contact

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Western blot analysis of various lysates using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at 1:1000 dilution.

Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000

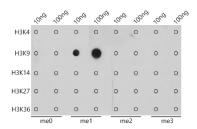
dilution.

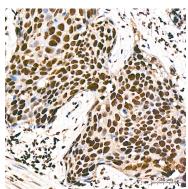
Lysates/proteins: 25µg per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 10s.



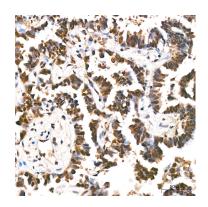


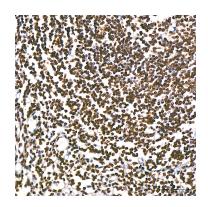
Immunohistochemistry analysis of

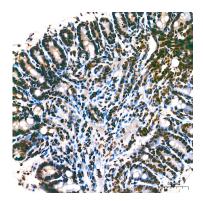
Dot-blot analysis of all sorts of peptides using MonoMethyl-Histone H3-K9 antibody (A20734) at 1:1000 dilution.

Immunohistochemistry analysis of paraffin-embedded Human cervix cancer tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

paraffin-embedded Human colon carcinoma tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



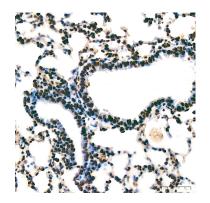




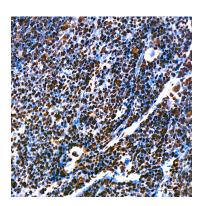
Immunohistochemistry analysis of paraffin-embedded Human lung adenocarcinoma tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

Immunohistochemistry analysis of paraffin-embedded Human tonsil tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

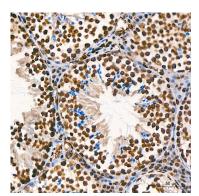
Immunohistochemistry analysis of paraffin-embedded Mouse colon tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



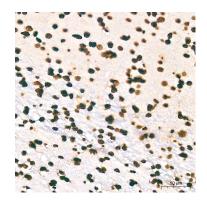
Immunohistochemistry analysis of paraffin-embedded Mouse lung tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse spleen tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



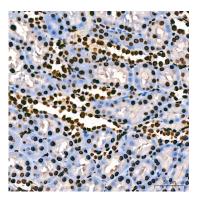
Immunohistochemistry analysis of paraffin-embedded Mouse testis tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



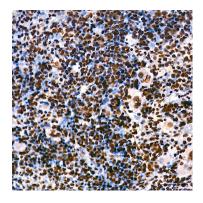
Immunohistochemistry analysis of paraffin-embedded Rat brain tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



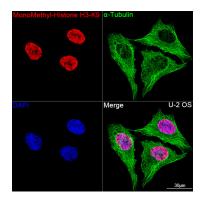
Immunohistochemistry analysis of paraffin-embedded Rat colon tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat kidney tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



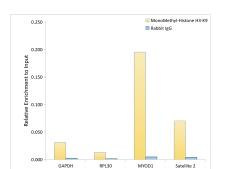
Immunohistochemistry analysis of paraffin-embedded Rat spleen tissue using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734) at a dilution of 1:800 (40x lens). High pressure



Confocal imaging of U-2 OS cells using MonoMethyl-Histone H3-K9 Rabbit mAb (A20734,dilution 1:100)(Red). The cells were counterstained with  $\alpha$ -Tubulin

## **Validation Data**

antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Mouse mAb (AC012, dilution 1:400) (Green). DAPI was used for nuclear staining (blue). Objective: 100x.

Chromatin immunoprecipitation analysis of extracts from HeLa cells, using MonoMethyl-Histone H3-K9 antibody (A20734) 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.



CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina(RK20265) from 10<sup>5</sup> K562 cells with 1 µg MonoMethyl-Histone H3-K9 antibody (A20734) , along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of H3K9me1 in representative gene loci (MYOD1), as shown in figure.