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MonoMethyl-Histone H3-K4 Rabbit mAb

Catalog No.: A22078 Recombinant

Basic Information

Observed MW
17kDa

Calculated MW
16kDa

Category
Primary antibody

Applications
ELISA,DB,WB,IF/ICC,CUT&Tag

Cross-Reactivity
Human, Mouse, Rat, Other (Wide Range Predicted)

CloneNo number
ARC54646

Background

Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone 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 located separately from the other H3 genes that are in the histone gene cluster on chromosome 6p22-p21.3.

Recommended Dilutions

DB	1:1000 - 1:5000
WB	1:2000 - 1:20000
IF/ICC	1:100 - 1:500
CUT&Tag	10^5 cells /1 μg

Immunogen Information

Gene ID
8290/8350

Swiss Prot
Q16695/P68431

Immunogen
A synthetic monomethylated peptide around K4 of human Histone H3 (NP_003520.1).

Synonyms
H3t; H3.4; H3/g; H3FT; H3C16; HIST3H3; MonoMethyl-Histone H3-K4

Contact

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Product Information

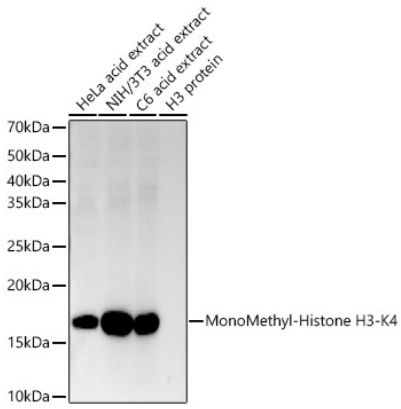
Source
Rabbit

Isotype
IgG

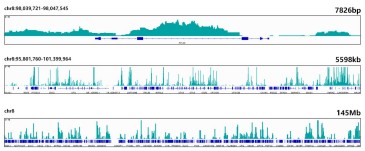
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3.

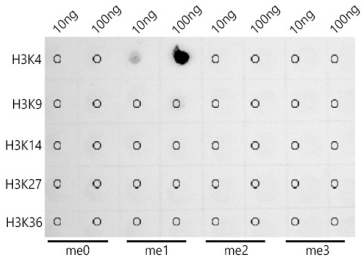
Validation Data



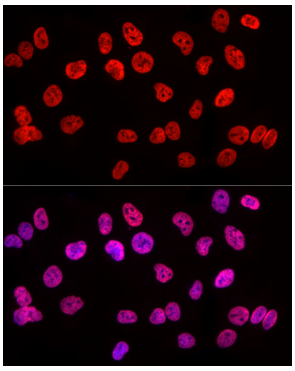
Western blot analysis of various lysates using MonoMethyl-Histone H3-K4 Rabbit mAb (A22078) at1:20000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Enhanced Kit (RM00021).
Exposure time: 60s.



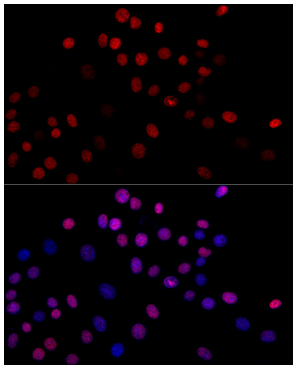
CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina(RK20265) from 10^5 K562 cells with 1 µg MonoMethyl-Histone H3-K4 antibody (A22078), along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of H3K4me1 in representative gene loci (RPL30), as shown in figure.



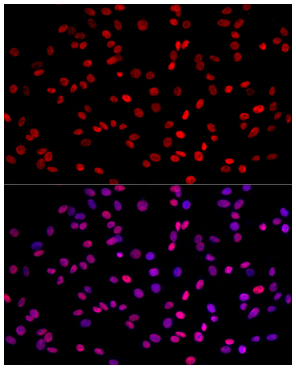
Dot-blot analysis of all sorts of peptides using MonoMethyl-Histone H3-K4 antibody (A22078) at 1:2000 dilution.



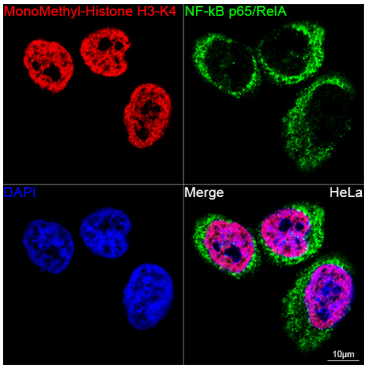
Immunofluorescence analysis of HeLa cells using MonoMethyl-Histone H3-K4 Rabbit mAb (A22078) at dilution of 1:300 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH/3T3 cells using MonoMethyl-Histone H3-K4 Rabbit mAb (A22078) at dilution of 1:300 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of PC-12 cells using MonoMethyl-Histone H3-K4 Rabbit mAb (A22078) at dilution of 1:300 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Confocal imaging of HeLa cells using MonoMethyl-Histone H3-K4 Rabbit mAb (A22078, dilution 1:300) (Green). The cells were counterstained with [KO Validated] NF-kB p65/RelA Rabbit mAb (A22331, dilution 1:100) (Red). DAPI was used for nuclear staining (blue). Objective: 60x.