Histone H3K79 Methylation Antibody Panel Pack

Base Catalog # C10009

PACK CONTENTS

Component	Size	Shipping Temperature	Storage Upon Receipt	Storage Checklist
3K79M Histone H3K79me1 (H3K79 Monomethyl) Polyclonal Antibody	25 µl	4°C	–20°C	
3K79D Histone H3K79me2 (H3K79 Dimethyl) Polyclonal Antibody	25 µl	4°C	–20°C	
3K79T Histone H3K79me3 (H3K79 Trimethyl) Polyclonal Antibody	25 µl	4°C	–20°C	
HGR2 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 all components at −20°C away from light.

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

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2023-12-06
C10009

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Histone H3K79me1 (H3K79 Monomethyl) Polyclonal Antibody

Component Cat. #C10009-3K79M

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 H3K79me1 (H3K79 Monomethyl) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

Specificity
Broad Range, Mouse, Rat, Human

Isotype
IgG

Uniprot ID
Q16695

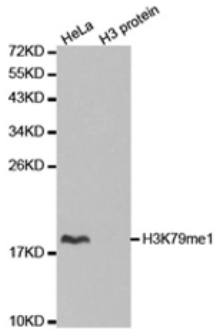
Purification
Affinity Purified

Immunogen
Synthetic Peptide of Human MonoMethyl-Histone H3-K79

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

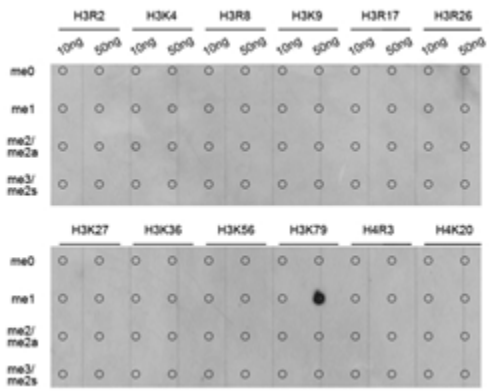
Alternative Names
HIST1H3J; H3/j; H3FJ; Histone H3.1; Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d; Histone H3/f; Histone H3/h; Histone H3/I; Histone H3/j; Histone H3/k; Histone H3/l; HIST3H3; H3K79me1 antibody; H3K79m1 antibody

Application
WB, IHC, IF, IP, ChIP, ChIPseq; Recommended dilution: WB 1:500 - 1:1000, IHC 1:50 - 1:200, IF 1:50 - 1:200 IP 1:50 - 1:200, ChIP 1:20 - 1:100, CHIPseq 1:20 - 1:100

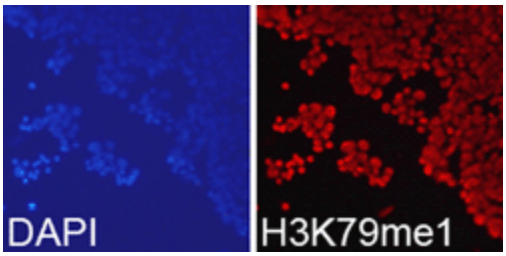


Western blot analysis of extracts of HeLa cell line and H3 protein expressed in E.coli., using H3K79me1 Polyclonal Antibody.

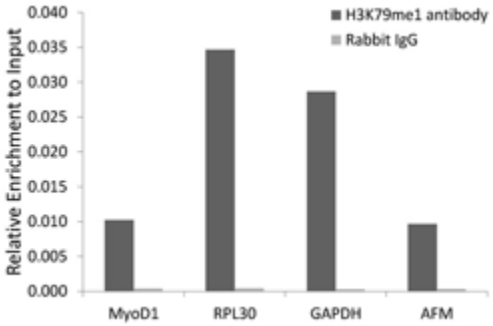
 2018-11-30-A-4043



Dot-blot analysis of all sorts of methylation peptides using H3K79me1 Polyclonal Antibody.



Immunofluorescence analysis of 293T cell using H3K79me1 Polyclonal Antibody. Blue: DAPI for nuclear staining.



Chromatin immunoprecipitation analysis extracts of 293 cell line, using MonoMethyl-Histone H3-K79 Polyclonal 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.

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Histone H3K79me2 (H3K79 Dimethyl) Polyclonal Antibody

(Component Cat. #C10009-3K79D)

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 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.

Description
Histone H3K79me2 (H3K79 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

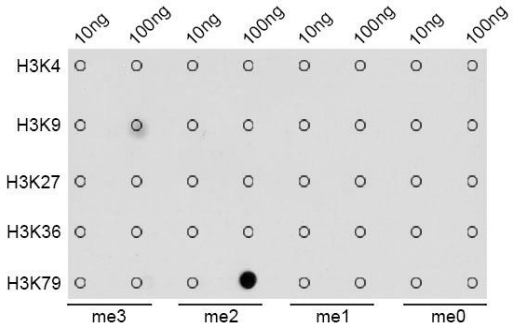
Purification
Affinity Purified

Immunogen
A synthetic dimethylated peptide around K79 of human Histone H3 (NP_003520.1).

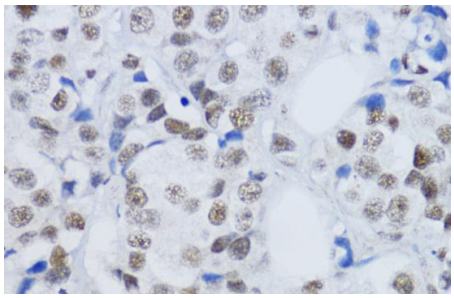
Storage
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

Alternative Names
H3.4; H3/g; H3FT; H3t; MGC126886; MGC126888; H3K79me2 antibody; H3K79m2 antibody

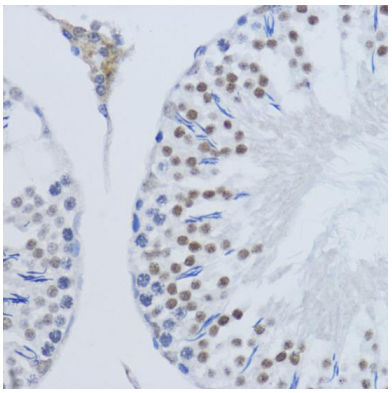
Application
WB, IHC, IF, IP, ChIP, ChIPseq; Recommended dilution: WB 1:500 - 1:1000, IHC 1:50 - 1:100, IF 1:50 - 1:200, IP 1:500 - 1:1000, ChIP 1:500 - 1:1000, ChIP-seq 1:50 - 1:200



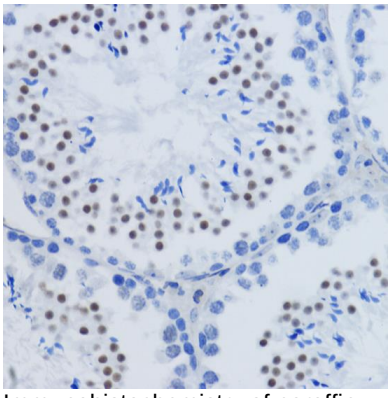
Dot-blot analysis of all sorts of methylation peptides using DiMethyl-Histone H3-K79 antibody.


Immunohistochemistry of paraffin-embedded human mammary cancer using DiMethyl-Histone H3-K79 antibody at dilution of 1:200 (40x lens).

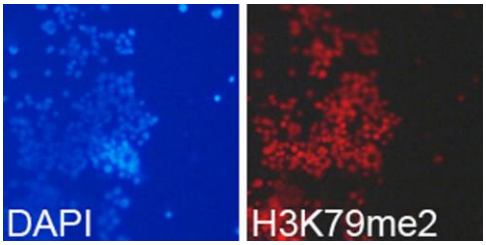
 2023-06-23-A-4044



Immunohistochemistry of paraffin-embedded rat testis using DiMethyl-Histone H3-K79 antibody at dilution of 1:200 (40x lens).



Immunohistochemistry of paraffin-embedded mouse testis using DiMethyl-Histone H3-K79 antibody at dilution of 1:200 (40x lens).



Immunofluorescence analysis of 293T cells using DiMethyl-Histone H3-K79 antibody. Blue: DAPI for nuclear staining.

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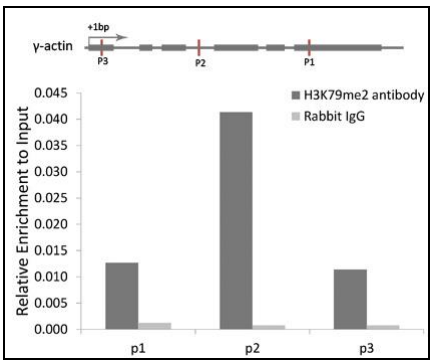
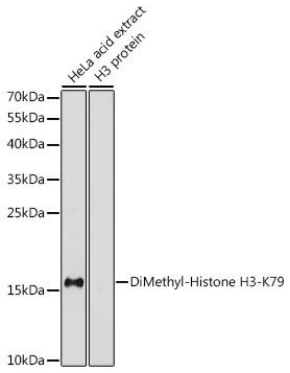
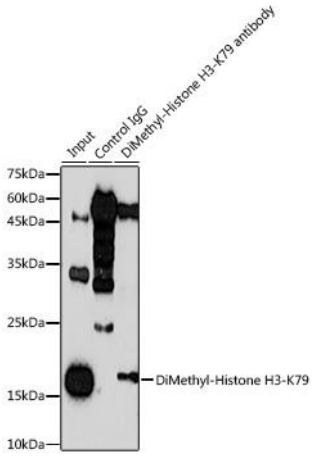


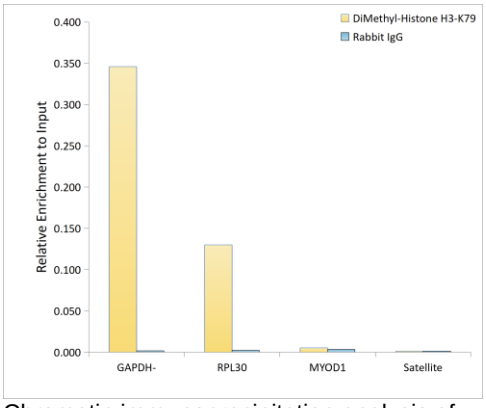
Chromatin Immunoprecipitation analysis of γ-actin gene from 293 cell line, using DiMethyl-Histone H3-K79 antibody and rabbit IgG. P1, P2 and P3 were probes located on γ-actin gene as the schematic diagram illustrated. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.



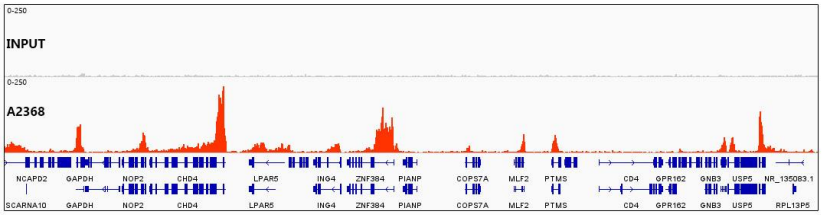
Western blot analysis of extracts of HeLa cells, using DiMethyl-Histone H3-K79 antibody at 1:1000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.



Immunoprecipitation analysis of 300 µg extracts of HeLa cells using 3 µg DiMethyl-Histone H3-K79 antibody.
Western blot was performed from the immunoprecipitate using DiMethyl-Histone H3-K79 antibody at a dilution of 1:1000.



Chromatin immunoprecipitation analysis of extracts of MCF7 cells, using DiMethyl-Histone H3-K79 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.



Chromatin immunoprecipitations were performed with cross-linked chromatin from K-562 cells and DiMethyl-Histone H3-K79 Rabbit pAb. The ChIP sequencing results indicate the enrichment pattern of DiMethyl-Histone H3-K79 in selected genomic region and representative gene loci (GAPDH), as shown in figure.

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Histone H3K79me3 (H3K79 Trimethyl) Polyclonal Antibody

Component Cat. #C10009-3K79T

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.

Description
Histone H3K79me3 (H3K79 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

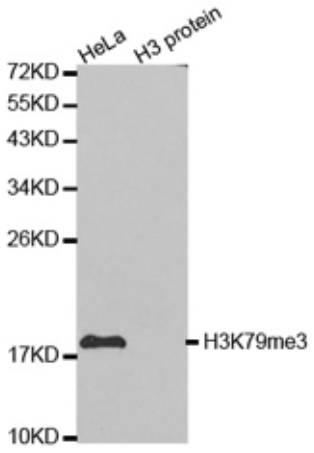
Uniprot ID
Q16695

Purification
Affinity Purified

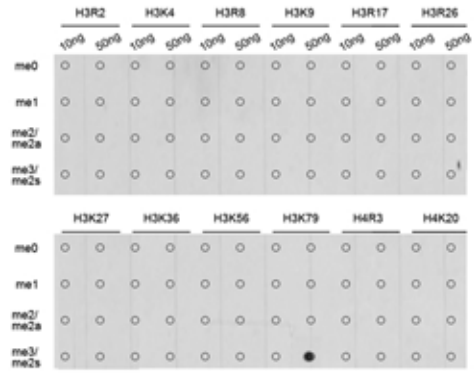
Immunogen
Synthetic Peptide of Human TriMethyl-Histone H3-K79

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

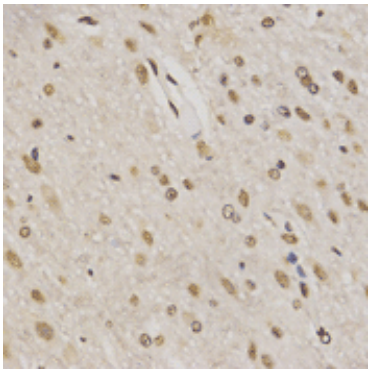
Application
WB, IHC, IF, IP, ChIP, ChIPseq; Recommended dilution: WB 1:500 - 1:2000, IHC 1:50 - 1:200, IF 1:50 - 1:200, IP 1:50 - 1:200, ChIP 1:20 - 1:100 CHIPseq 1:20 - 1:100



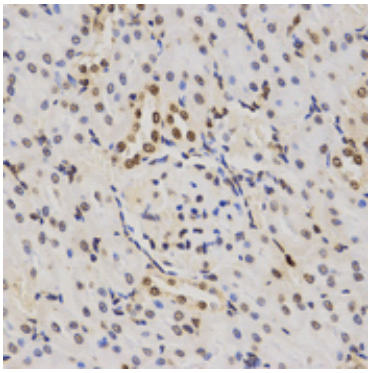
Western blot analysis of extracts of HeLa cell line and H3 protein expressed in E. coli., using Histone H3K79me3 Polyclonal Antibody.



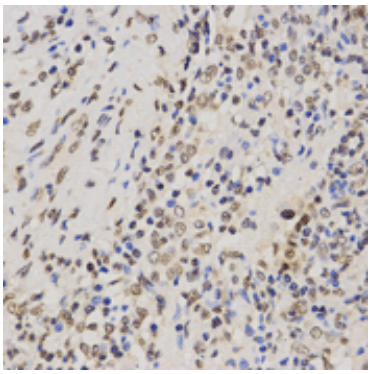
Dot-blot analysis of all sorts of methylation peptides using Histone H3K79me3 Polyclonal Antibody.



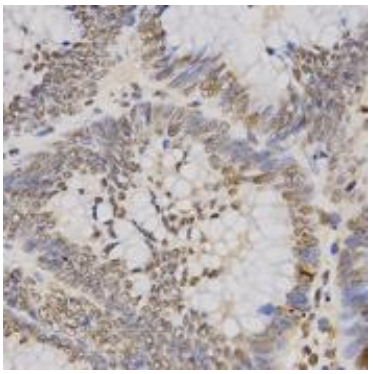
Immunohistochemistry of paraffin-embedded rat brain tissue using Histone H3K79me3 Polyclonal Antibody at dilution of 1:200 (x400 lens).



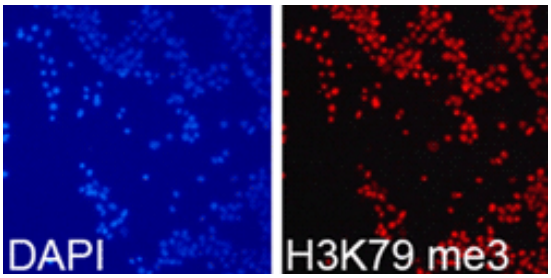
Immunohistochemistry of paraffin-embedded rat kidney tissue using Histone H3K79me3 Polyclonal Antibody at dilution of 1:200 (x400 lens).



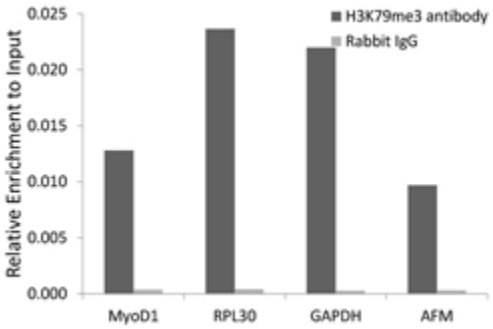
Immunohistochemistry of paraffin-embedded human lung cancer tissue using Histone H3K79me3 Polyclonal Antibody at dilution of 1:200 (x400 lens).



Immunohistochemistry of paraffin-embedded human rectal cancer tissue using Histone H3K79me3 Polyclonal Antibody at dilution of 1:200 (x400 lens).



Immunofluorescence analysis of 293T cell using Histone H3K79me3 Polyclonal Antibody. Blue: DAPI for nuclear staining.



Chromatin immunoprecipitation analysis extracts of 293 cell line, using Histone H3K79me3 Polyclonal 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.

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HRP- Goat Anti-Rabbit Secondary Antibody

Component Cat. #C10009-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

 2023-04-07-A12004

RELATED PRODUCTS

Histone Modification Antibodies

A-4043	Histone H3K79me1 (H3K79 Monomethyl) Polyclonal Antibody
A-4044	Histone H3K79me2 (H3K79 Dimethyl) Polyclonal Antibody
A-4045	Histone H3K79me3 (H3K79 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
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

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