Histone H3 Methylation Antibody Panel Pack II - Repression Genes

Base Catalog # C10003

PACK CONTENTS

Component	Size	Shipping Temperature	Storage Upon Receipt	Storage Checklist
3R2DA Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody	25 µl	4°C	–20°C	
3R2DS Histone H3R2 Dimethyl Symmetric (H3R2me2s) Polyclonal Antibody	25 µl	4°C	–20°C	
3R8DA Histone H3R8 Dimethyl Asymmetric (H3R8me2a) Polyclonal Antibody	25 µl	4°C	–20°C	
3R8DS Histone H3R8 Dimethyl Symmetric (H3R8me2s) 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.

110 Bi County Blvd. Ste. 122, Farmingdale, NY 11735
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C10003

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Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody

Component Cat. #C10003-3R2DA

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 6p22-p21. 3.

Description
Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

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

Specificity
Human, Mouse, Rat, Broad Range

Isotype
IgG

Uniprot ID
Q16695

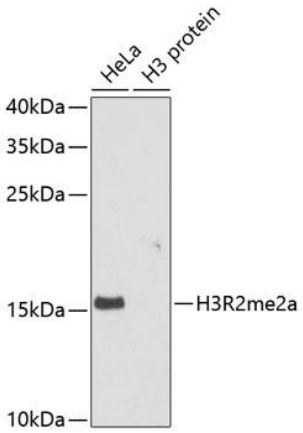
Purification
Affinity Purified

Immunogen
A synthetic asymmetric dimethylated peptide around R2 of human histone H3 (NP_003520.1)

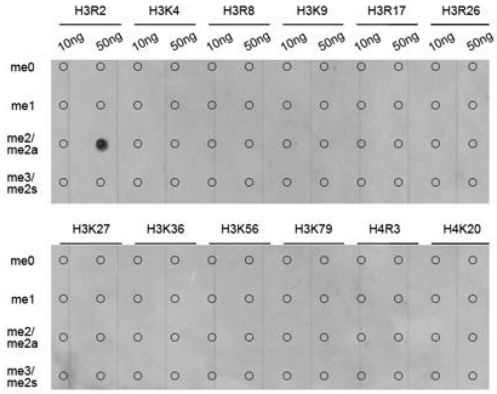
Storage
Shipped at 4°C. Upon receipt, store at -20°C. Avoid repeated freeze.

Alternative Names
H3R2me2a, 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, H3 Arginine 2 me2a

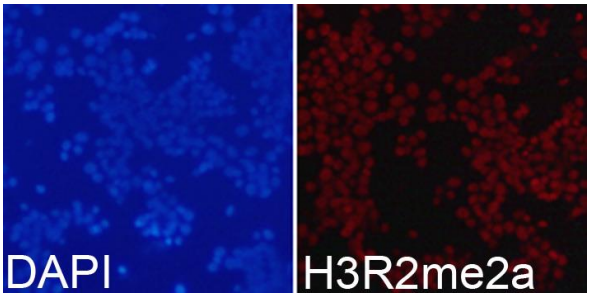
Application
WB, IF, IP, ChIP, ChIP-seq



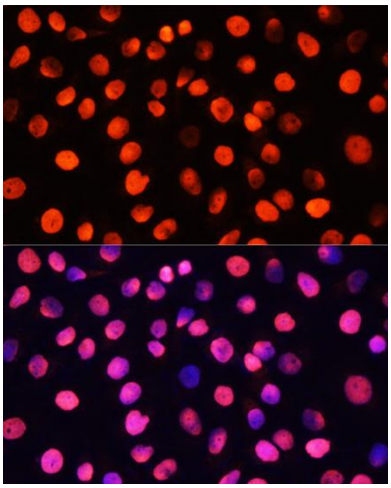
Western blot analysis of extracts of various cell lines, using Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody at 1:1000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution.
Lysates/proteins: 25ug per lane.
Blocking buffer: 3% nonfat dry milk in TBST.



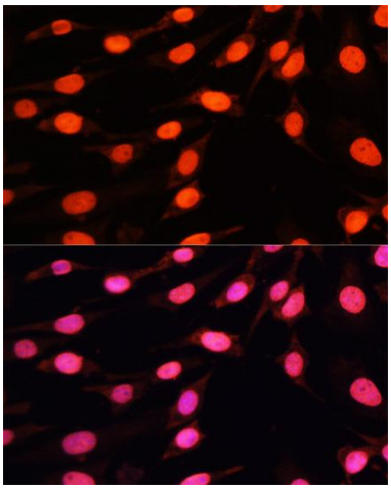
Dot-blot analysis of all sorts of methylation peptides using Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody.



Immunofluorescence analysis of 293T cells using Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of HeLa cells using Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH/3T3 cells using Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.

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Histone H3R2 Dimethyl Symmetric (H3R2me2s) Polyclonal Antibody

Component Cat. #C10003-3R2DS

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 H3R2 Dimethyl Symmetric (H3R2me2s) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

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

Specificity
Human, Mouse, Rat, Broad Range

Isotype
IgG

Uniprot ID
Q16695

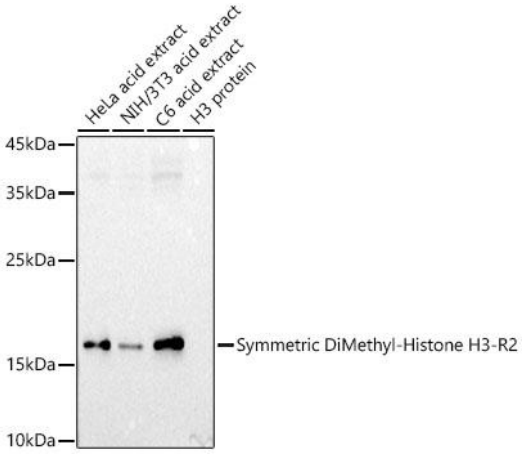
Purification
Affinity Purified

Immunogen
A synthetic symmetric dimethylated peptide around R2 of human histone H3 (NP_003520.1).

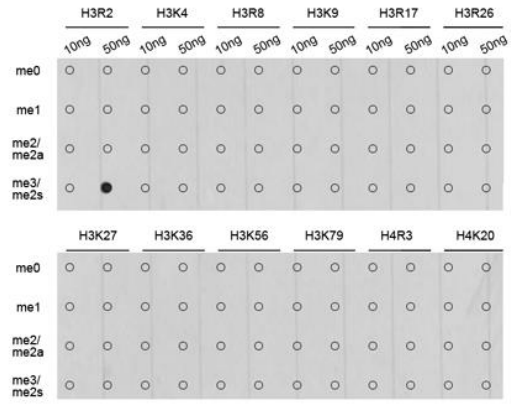
Storage
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

Alternative Names
H3R2me2s, 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, H3 Arginine 2 me2s

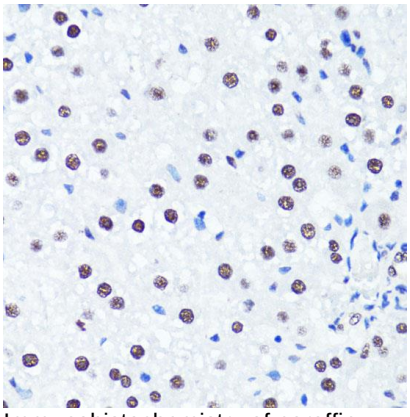
Application
WB, IHC, IF, IP, ChIP, ChIPseq; Recommended dilution: WB 1:500 - 1:2000 IHC 1:50 - 1:200 IF 1:50 - 1:200 IP 1:50 - 1:200 ChIP 1:20 - 1:100 CHIPseq 1:20 - 1:100



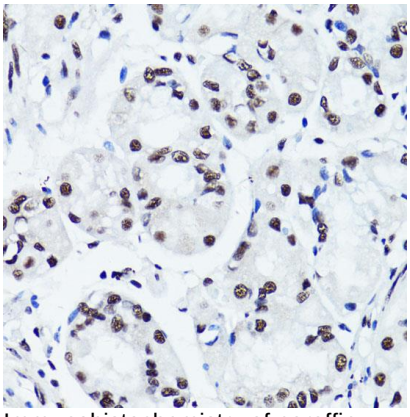
Western blot analysis of extracts of various cell lines, using H3R2me2s Polyclonal Antibody at 1:1000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution.
Lysates/proteins: 25ug per lane.
Blocking buffer: 3% nonfat dry milk in TBST.



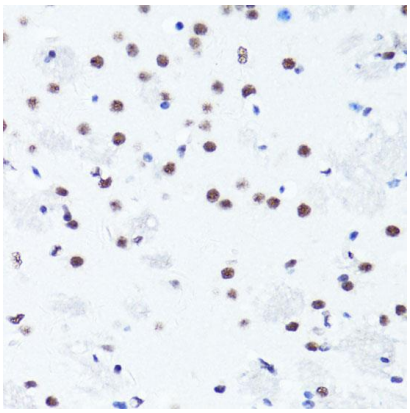
Dot-blot analysis of all sorts of methylation peptides using H3R2me2s Polyclonal Antibody.



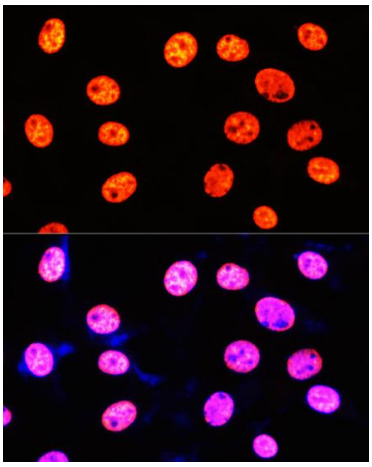
Immunohistochemistry of paraffin-embedded rat liver using H3R2me2s Polyclonal Antibody at dilution of 1:100 (40x lens).



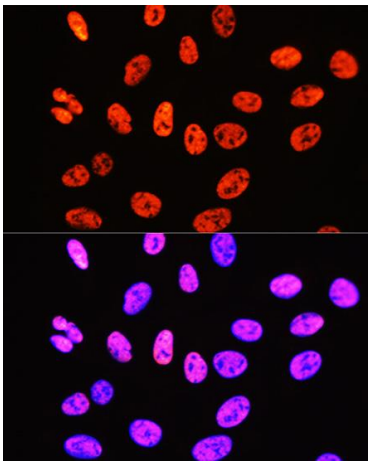
Immunohistochemistry of paraffin-embedded human stomach using H3R2me2s Polyclonal Antibody at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded mouse brain using H3R2me2s Polyclonal Antibody at dilution of 1:100 (40x lens).



Immunofluorescence analysis of NIH/3T3 cells using H3R2me2s Polyclonal Antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U2OS cells using H3R2me2s Polyclonal Antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

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Histone H3R8 Dimethyl Asymmetric (H3R8me2a) Polyclonal Antibody

Component Cat. #C10003-3R8DA

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 H3R8 Dimethyl Asymmetric (H3R8me2a) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

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

Specificity
Human, Mouse, Rat, Broad Range

Isotype
IgG

Uniprot ID
Q16695

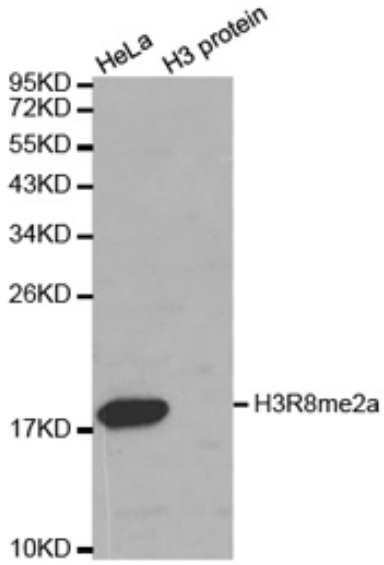
Purification
Affinity Purified

Immunogen
Synthetic Peptide of Human Asymmetric DiMethyl-Histone H3-R8

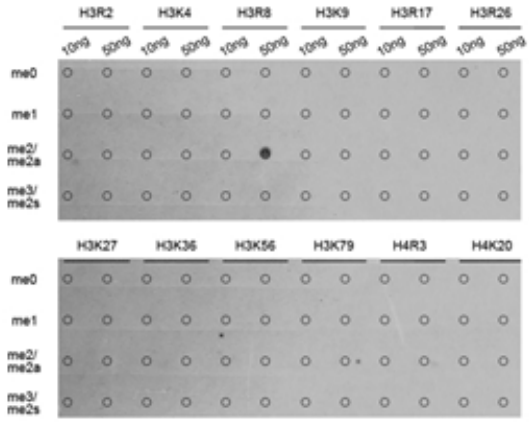
Storage
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

Alternative Names
H3R8me2a, 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, H3 Arginine 8 me2a

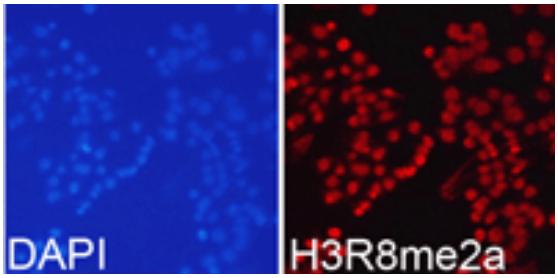
Application
WB, IHC, IF; Recommended dilution: WB 1:500 - 1:2000, IHC 1:50 - 1:200, IF 1:50 - 1:200



Western blot analysis of extracts of HeLa cell line and H3 protein expressed in E.coli., using Histone H3R8 Asymmetric Dimethyl Polyclonal Antibody.



Dot-blot analysis of all sorts of methylation peptides using Histone H3R8 Asymmetric Dimethyl Polyclonal Antibody.



Immunofluorescence analysis of 293T cell using Histone H3R8 Asymmetric Dimethyl Polyclonal Antibody. Blue: DAPI for nuclear staining.

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Histone H3R8 Dimethyl Symmetric (H3R8me2s) Polyclonal Antibody

Component Cat. #C10003-3R8DS

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 H3R8 Dimethyl Symmetric (H3R8me2s) Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

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

Specificity
Human, Mouse, Rat, Broad Range

Isotype
IgG

Uniprot ID
Q16695

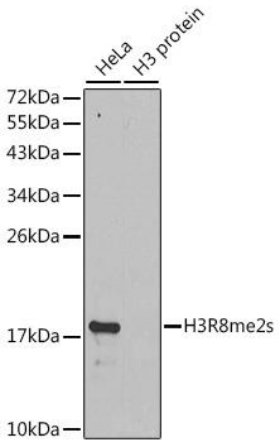
Purification
Affinity Purified

Immunogen
A synthetic symmetric dimethylated peptide around R8 of human histone H3 (NP_003520.1).

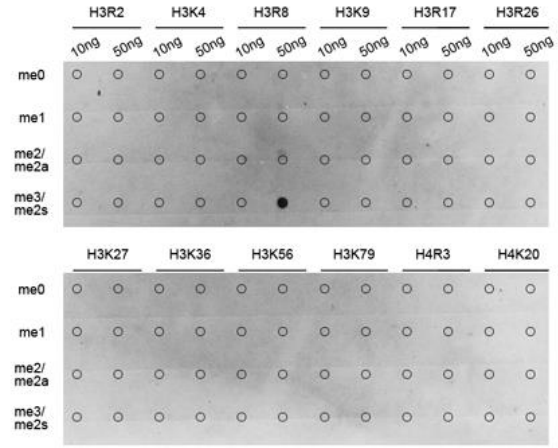
Storage
Shipped at 4°C. Store at -20°C. Avoid multiple freeze/thaw cycles.

Alternative Names
HIST3H3; H3.4; H3/g; H3FT; H3t; histone H3.1t

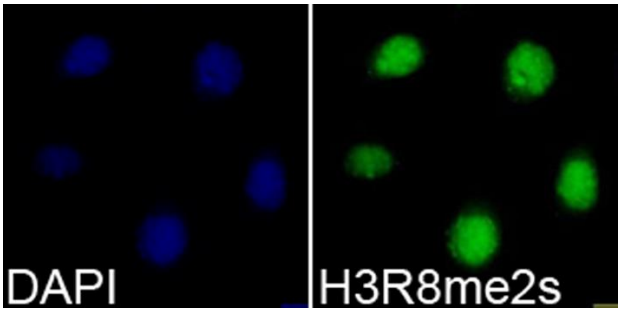
Application
WB, IHC, IF, IP, ChIP, ChIPseq; Recommended dilutions: WB 1:500 - 1:2000, IHC 1:50 - 1:200, IF 1:50 - 1:200, IP 1:50 - 1:200, CHIP 1:20 - 1:50, CHIPseq 1:20 - 1:50



Western blot analysis of extracts of various cell lines, using Histone H3R8 Dimethyl Symmetric (H3R8me2s) Polyclonal 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.



Dot-blot analysis of all sorts of methylation peptides using Histone H3R8 Dimethyl Symmetric (H3R8me2s) Polyclonal Antibody.



Immunofluorescence analysis of 293T cells using Histone H3R8 Dimethyl Symmetric (H3R8me2s) Polyclonal Antibody.
Blue: DAPI for nuclear staining.

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HRP-Goat Anti-Rabbit Secondary Antibody

Component Cat. #C10003-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-3714	Histone H3R2 Dimethyl Asymmetric (H3R2me2a) Polyclonal Antibody
A-3705	Histone H3R2 Dimethyl Symmetric (H3R2me2s) Polyclonal Antibody
A-3716	Histone H3R8 Dimethyl Asymmetric (H3R8me2a) Polyclonal Antibody
A-3706	Histone H3R8 Dimethyl Symmetric (H3R8me2s) 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

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