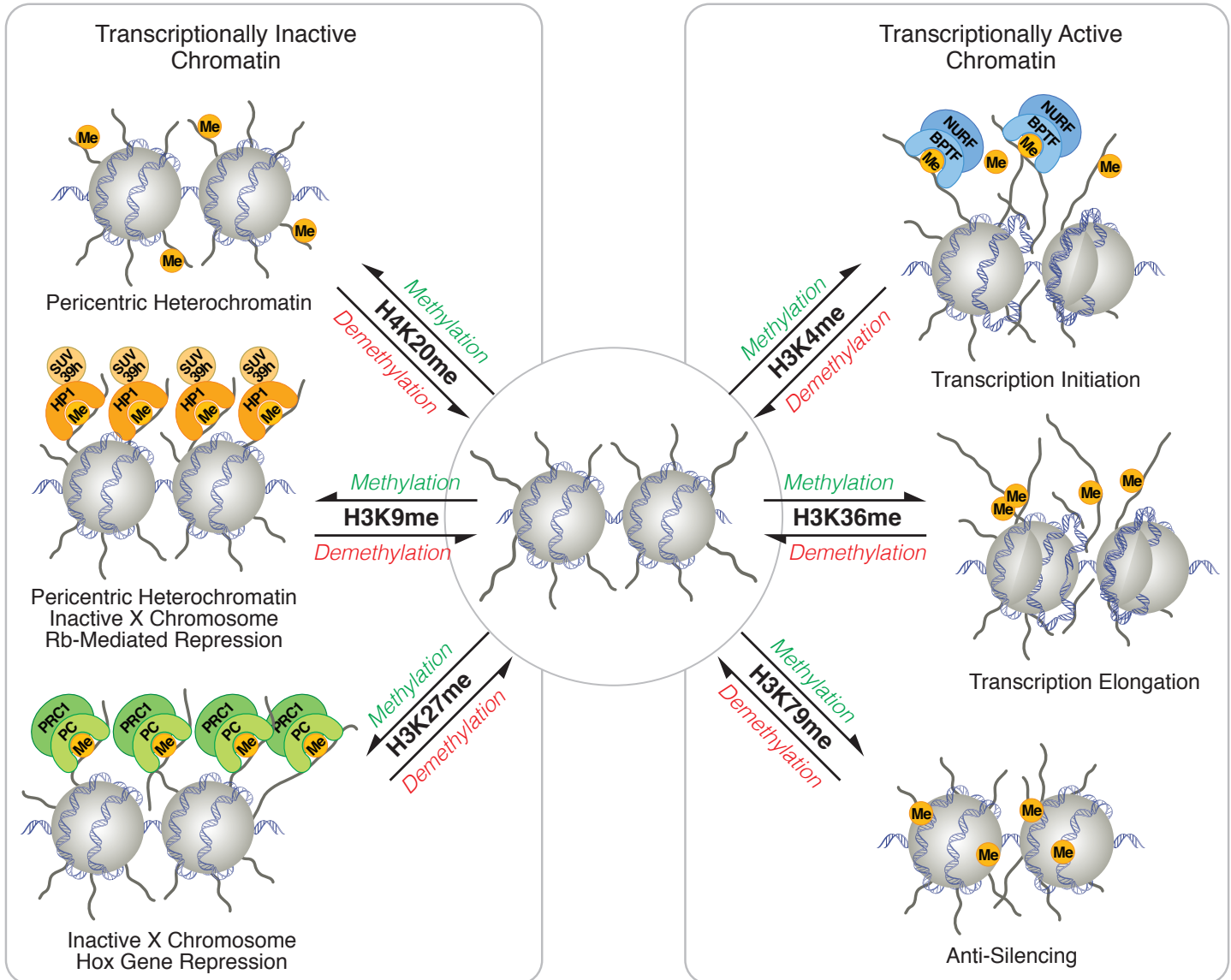


Histones and Histone Modifications

Histone Lysine Methylation Pathway



H4K20me Methylases: SET8/KMT5A (+) NSD1/KMT3B (+,†) ASH1L/KMT2H (+,†,‡) SUV420H1/KMT5B (†,‡) SUV420H2/KMT5C (†,‡) NSD2/KMT3G (+,†) Demethylases: JHDM1D/KDM7A (+,†) PHF8/KDM7B (+,†)	H3K9me Methylases: PRDM3/KMT8E (+) PPRDM16/KMT8F (+) G9a/EHMT2/KMT1C (+,†) EHMT1/KMT1D (+,†) ASH1L/KMT2H (+,†,‡) PRDM2/KMT8A (+,†,‡) PRDM8/KMT8D (†) SUV39H1/KMT1A (†,‡) SUV39H2/KMT1B (†,‡)	ESET/KMT1E (†,‡) CLLD8/KMT1F (†,‡) Demethylases: AOF1/KDM1B (+,†) JMJD1A/KDM3A (+,†) JMJD1B/KDM3B (+,†) JMJD1C/KDM3C (+,†) JHDM1D/KDM7A (+,†) PHF8/KDM7B (+,†) JMJD2A/KDM4B (†,‡)	JMJD2B/KDM4B (†,‡) JMJD2C/KDM4C (†,‡) JMJD2D/KDM4D (†,‡) KDM4E/KDM4DL (†,‡) H3K27me Methylases: Ezh2/KMT6 (+,†,‡) NSD2/KMT3G (+,†,‡) NSD3/KMT3F (†,‡) Demethylases: JHDM1D/KDM7A (+,†)	PHF8/KDM7B (+,†) UTX/KDM6A (†,‡) JMJD3/KDM6B (†,‡) H3K4me Methylases: MLL1/KMT2A (+,†,‡) MLL2/KMT2B (+,†,‡) MLL3/KMT2C (+) MLL4/KMT2D (+) SET1A/KMT2F (+,†,‡) SET1B/KMT2G (+,†,‡)	NSD3/KMT3F (+,†) NSD2/KMT3G (+,†) SET7/KMT7 (†) SMYD3/KMT3E (†,‡) ASH1L/KMT2H (+,†,‡) PRDM9/KMT8B (†) Demethylases: LSD1/KDM1A (+,†) AOF1/KDM1B (+,†) JARID1A/KDM5A (†,‡)	JARID1B/KDM5B (†,‡) JARID1C/KDM5C (†,‡) JARID1D/KDM5D (†,‡) H3K36me Methylases: NSD1/KMT3B (+,†) SMYD2/KMT3C (+,†) NSD2/KMT3G (+,†) SET2/KMT3A (†) Demethylases: JMJD1A/KDM2A (+,†)	JMJD1B/KDM2B (+,†) JMJD2A/KDM4A (†,‡) JMJD2B/KDM4B (†,‡) JMJD2C/KDM4C (†,‡) JMJD2D/KDM4D (†,‡) KDM4DL/KDM4E (†,‡) H3K79me Methylases: DOT1L/KMT4 (+,†,‡) Demethylases: ???
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Key Products for Histones and Histone Modifications

Visit www.cellsignal.com/histonelist for full listing of antibodies, related kits, and reagents.

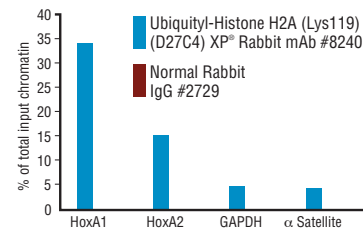
ANTIBODIES

	APPLICATIONS	REACTIVITY
#12349 Histone H2A (D603A) Rabbit mAb	WB, IF-IC, ChIP	H, M, R, Mk, Z, (Hm, B, Dg)
#2576 Acetyl-Histone H2A (Lys5) Antibody	WB, IP, IHC-P	H, M, R, Mk
#8240 Ubiquityl-Histone H2A (Lys119) (D27C4) XP® Rabbit mAb	WB, IP, ChIP	H, M, R, Mk
#7631 Histone H2A.X (D17A3) XP® Rabbit mAb	WB, IHC-P, IF-IC	H, M, R, Mk
#9718 Phospho-Histone H2A.X (Ser139) (20E3) Rabbit mAb	WB, IHC-P, IF-IC, F	H, M, R, Mk
#2718 Histone H2A.Z Antibody	WB, IP, IF-IC	H, M, R, Mk, Z, (C, X, B)
#12364 Histone H2B (D2H6) Rabbit mAb	WB, IHC-P, ChIP	H, M, R, Mk, (C, Z, B)
#12799 Acetyl-Histone H2B (Lys5) (D5H1S) XP® Rabbit mAb	WB, IP, IHC-P, IF-IC, ChIP	H, M, R, Mk, (Hm, C, Z, B, Hr)
#9083 Acetyl-Histone H2B (Lys15) (D8H1) XP® Rabbit mAb	WB, IP, IF-IC, ChIP	H, M, R, Mk, (Z, B, Pg, Hr)
#5546 Ubiquityl-Histone H2B (Lys120) (D11) XP® Rabbit mAb	WB, ChIP	H, M, R, Mk
#4499 Histone H3 (D1H2) XP® Rabbit mAb	WB, IHC-P, IF-IC, F	H, M, R, Mk, (Hm, C, Dm, X, Z, B)
#4620 Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated)	ChIP	H, M, (R, Hm, C, Dm, X, Z, B)
#9706 Phospho-Histone H3 (Ser10) (6G3) Mouse mAb	WB, IF-F, IF-IC, F	H, M, R
#9701 Phospho-Histone H3 (Ser10) Antibody	WB, IP, IHC-P, IHC-F, IF-IC, F	H, M, R, Mk, Dm, Z, Sc, (X)
#9713 Phospho-Histone H3 (Ser28) Antibody	WB, IP, IF-F, IF-IC, F	H, M, Hm, Dm, (R, C, X, Z, B)
#9649 Acetyl-Histone H3 (Lys9) (C5B11) Rabbit mAb	WB, IP, IHC-P, IF-IC, F, ChIP	H, M, R, Mk, Z, Ce, (Sc)
#9677 Acetyl-Histone H3 (Lys9/Lys14) Antibody	WB, IP, IHC-P, IF-IC, ChIP	H, M, R, Mk, Ce, (Z)
#7627 Acetyl-Histone H3 (Lys14) (D4B9) Rabbit mAb	WB, IP, ChIP	H, M, R, Mk, (Hm, Dm, X, Z, Pg, Sc, Hr)
#13998 Acetyl-Histone H3 (Lys18) (D8Z5H) Rabbit mAb	WB, IP, IHC-P, F, ChIP	H, M, R, Mk, Sc, (Hm, Pg)
#8173 Acetyl-Histone H3 (Lys27) (D5E4) XP® Rabbit mAb	WB, IF-IC, ChIP	H, M, R, Mk, (Hm, X, Z, Hr)
#5326 Mono-Methyl-Histone H3 (Lys4) (D1A9) XP® Rabbit mAb	WB, IF-IC, ChIP	H, M, R, Mk, (Dm)
#14186 Mono-Methyl-Histone H3 (Lys9) (D1P5R) Rabbit mAb	WB, IP, IF-IC, ChIP	H, M, R, Mk, (X, Z, Pg, Sc, Hr)
#14111 Mono-Methyl-Histone H3 (Lys36) (D9J1D) Rabbit mAb	WB, IP, ChIP	H, M, R, Mk, (Hm, B)
#12522 Mono-Methyl-Histone H3 (Lys79) (D5X1S) Rabbit mAb	WB, ChIP	H, M, R, Mk
#9725 Di-Methyl-Histone H3 (Lys4) (C64G9) Rabbit mAb	WB, IP, IHC-P, IF-IC, ChIP	H, M, R, Mk
#4658 Di-Methyl-Histone H3 (Lys9) (D85B4) XP® Rabbit mAb	WB, IP, IF-IC, ChIP	H, M, R, Mk, (Dm, X, Z, B, Pg, Sc, Ce)
#9728 Di-Methyl-Histone H3 (Lys27) (D18C8) XP® Rabbit mAb	WB, IP, IF-IC, F, ChIP	H, M, R, Mk
#2901 Di-Methyl-Histone H3 (Lys36) (C75H12) Rabbit mAb	WB, IHC-P, IF-IC	H, M, R, Mk
#5427 Di-Methyl-Histone H3 (Lys79) (D15E8) XP® Rabbit mAb	WB, ChIP	H, M, R, Mk
#5327 Di/Tri-Methyl-Histone H3 (Lys9) (6F12) Mouse mAb	WB, IP, IF-IC, ChIP	H, M, R, Mk
#9751 Tri-Methyl-Histone H3 (Lys4) (C42D8) Rabbit mAb	WB, IHC-P, IF-IC, F, ChIP	H, M, R, Mk, Dm, Sc, (X, Z)
#13969 Tri-Methyl-Histone H3 (Lys9) (D4W1U) Rabbit mAb	WB, IP, IF-IC, ChIP	H, M, R, Mk, (B)
#9733 Tri-Methyl-Histone H3 (Lys27) (C36B11) Rabbit mAb	WB, IP, IHC-P, IF-IC, F, ChIP	H, M, R, Mk, (X, Z)
#4909 Tri-Methyl-Histone H3 (Lys36) (D5A7) XP® Rabbit mAb	WB, ChIP	H, M, R, Mk, (Hm, C, Dm, X, Z, B)
#9763 Tri-Methyl-Histone H3 (Lys36) Antibody	WB, IHC-P, IF-IC	H, M, R, Mk
#4473 Pan-Methyl-Histone H3 (Lys9) (D54) XP® Rabbit mAb	WB, IP, IF-IC, F, ChIP	H, M, R, Mk, (C, Dm, X, Z, B, Pg, Sc, Ce)
#13919 Histone H4 (D2X4V) Rabbit mAb	WB, IHC-P, IF-IC	H, M, R, Mk, (Hm, C, B)
#8647 Acetyl-Histone H4 (Lys5) (D12B3) Rabbit mAb	WB, IP, IHC-P, IF-IC, ChIP	H, M, R, Mk, (C, Dm, X, Z, B, Pg, Hr, Ce)
#2594 Acetyl-Histone H4 (Lys8) Antibody	WB	H, M, R, Mk, (Ce)
#13944 Acetyl-Histone H4 (Lys12) (D2W6O) Rabbit mAb	WB, IP, IF-IC, F, ChIP	H, R, Mk, (C, Dm)
#13534 Acetyl-Histone H4 (Lys16) (E2B8W) Rabbit mAb	WB, IP, IF-IC, ChIP	H, M, R, Mk
#9724 Mono-Methyl-Histone H4 (Lys20) Antibody	WB	H, M, R, Mk, (Dm, X, Z, B, Pg, Hr, Ce)
#5737 Tri-Methyl-Histone H4 (Lys20) (D84D2) Rabbit mAb	WB, ChIP	H, M, R, Mk, (X, B, Pg)

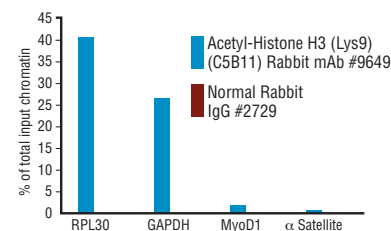
RELATED KITS AND ASSAYS

#9003 SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads)
#9005 SimpleChIP® Plus Enzymatic Chromatin IP Kit (Magnetic Beads)
#7253 PathScan® Total Histone H3 Sandwich ELISA Kit
#7866 PathScan® Tri-Methyl-Histone H3 (Lys27) Sandwich ELISA Kit
#9927 Acetyl-Histone H3 Antibody Sampler Kit

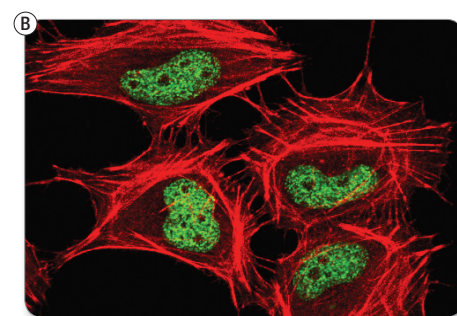
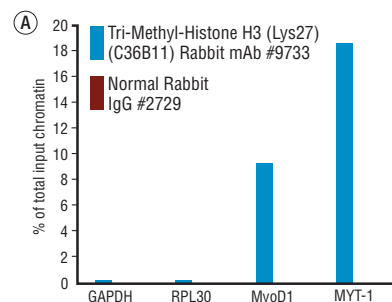
APPLICATIONS & REACTIVITY KEY: **WB** Western Blotting / **IP** Immunoprecipitation / **IHC** Immunohistochemistry / **IF** Immunofluorescence / **F** Flow Cytometry / **ChIP** Chromatin Immunoprecipitation / **-IC** Immunocytochemistry / **-P** Paraffin / **-F** Frozen / **E-P** Peptide ELISA / **H** human / **M** mouse / **R** rat / **Hm** hamster / **Mk** monkey / **C** chicken / **Mi** mink / **Dm** D. melanogaster / **X** Xenopus / **Z** zebra fish / **B** bovine / **Dg** dog / **Pg** pig / **Sc** S. cerevisiae / **All** all species expected / () 100% sequence homology



Ubiquityl-Histone H2A (Lys119) (D27C4) XP® Rabbit mAb #8240: Chromatin IPs were performed with cross-linked chromatin from 4×10^6 NCCIT cells and either 10 μ l of #8240 or 2 μ l of Normal Rabbit IgG #2729 using SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads) #9003 and primers to the designated loci.



Acetyl-Histone H3 (Lys9) (C5B11) Rabbit mAb #9649: Chromatin IPs were performed with cross-linked chromatin from 4×10^6 HeLa cells and either 10 μ l of #9649 or 2 μ l of Normal Rabbit IgG #2729 using SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads) #9003 and primers to the designated loci.



Tri-Methyl Histone H3 (Lys27) (C36B11) Rabbit mAb #9733: Chromatin IPs (A) were performed with cross-linked chromatin from 4×10^6 HeLa cells and either 10 μ l of #9733 or 2 μ l of Normal Rabbit IgG #2729 using SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads) #9003 and primers to the designated loci. IF analysis (B) of HeLa cells using #9733 (green). Actin filaments have been labeled with DyLight™ 554 Phalloidin #13054 (red).