

Supplementary Table S1: Antibodies

Antibody	Company	Code	Application
α -5mC	Eurogentec	BI-MECY-0100	MedIP
α -5hmC	Active Motif	39769	MedIP
α -H3	Abcam	ab1791	ChIP; WB
α -H3Ac	Millipore	06-599	ChIP; WB
α -H3K4me1	Abcam	ab8895	ChIP
α -H3K4me3	Abcam	ab8580	ChIP
α -H3K9me3	Abcam	ab8898	ChIP
α -H3K27me3	Millipore	07-449	ChIP
α -HDAC1	Abcam	ab7028	ChIP
α -HDAC2	Abcam	ab7029	ChIP
α -HDAC4	Santa Cruz	SC-11418	ChIP
α -SETDB1/ESET	Santa Cruz	SC-66884	ChIP
α -SUV39H1	Abcam	ab12405	ChIP
α -Jmj2a	Santa Cruz	SC-135065	ChIP; WB
α -Jmj3	Abcam	ab38113	ChIP; WB
α -Utx	Santa Cruz	SC-79334	ChIP
α -Wdr5	Abcam	ab56919	ChIP
α -Cgbp	Santa Cruz	SC-25391	ChIP
α -Set1B	Santa Cruz	SC-248563	ChIP
α -Mll2	Santa Cruz	SC-292359	ChIP
α -Mll4	Abcam	ab60053	ChIP
α -Tet1	Abcam	ab157004	ChIP; WB
α -Tet2	Santa Cruz	SC-136926	ChIP; WB
α -Dnmt1	Santa Cruz	SC-20701	ChIP
α -Dnmt3a	Abcam	ab2850	ChIP
α -RNAPol II	Covance	8WG16/MSR6R	ChIP
α -RNAPol II	Santa Cruz	SC-899	WB
α -FLAG	Sigma	F3165	ChIP; WB
α -Brm	Santa Cruz	SC-6449	WB
α -Brm	both sera were kindly <i>donated by Dr.</i>		ChIP
α -Brg1	Anthony <i>Imbalzano</i> (UMASS, MA, USA)		ChIP