

Table S1. Primer list

Taqman primers (used for CHIP and Copy number determination)	taq-40nt1-F	AAT GAA AGA CCC CAC CTG TAG GT		
	taq-40nt94-R	AAA TGG CGT TAC TTA AGC TTG GA		
	taq-40nt40-Probe	/56-FAM/TCC TCC ACA CAC CAT CAC TCA CTC TTT CTC /36-TAMSp/		
	taq-PBS589-F	AGG GTC TCC TCT GAG TGA TTG ACT		
	taq-PBS731-R	TCG GAC AGA CAC AGA TAA GTT GCT		
	taq-PBS653-Probe	/56-FAM/ATC GGG AGA CCC CTG CCC AGG /36-TAMSp/		
ChIP primers (qPCR, Syber Green)	PBS-F	TGG CCA GCA ACT TAT CTG TG		
	PBS-R	CAG GCG CAT AAA ATC AGT CA		
	MLV PBS CHIP, F	GTA AAA ACT CCA CAC TCG GC		
	MLV PBS CHIP, R	ACG ATT CGG ATG CAA ACA GC		
	IAP PBS CHIP, F	CGT GAG AAC GCG TCG AAT AA		
	IAP PBS CHIP, R	TTC TGG TTC TGG AAT GAG GG		
	L-mChip-Polrmt	AGA CAC CTG CTG CCC TAT GT		
	R-mChip-Polrmt	GCT CCA TCC CAG TGC TTT AC		
	L-mChip-mest	CGT GGT CCA AGG GAT ATG TT		
	R-mChip-mest	TGA AGA AAG CCT TCC CAT GT		
	mES_Bmp2_Fd	CCG ATC ACC TCT CTT CCT CA		
	mES_Bmp2_Rev	CTG GGC TTC TGT TGC TTT TC		
	mES_Gapdh_A+_Fd	ACC TTT AGC CTT GCC CTT T		
	mES_Gapdh_A+_Rev	ACA TCA CCC CCA TCA CTC AT		
L-m-Aprt	GGG ATA TCT CGC CCC TCT T			
R-m-Aprt	CAC TCG CCT GCG ATG TAG T			
RT-qPCR primers	Hp1gExon5-L	CAG AGG TCT CGA CCC TGA AC		
	Hp1gExon5/6-R	GTC CGA GTC CTT CCA CTT CA		
	CYCAxon3-L	GAG CTC TGA GCA CTG GAG AGA		
	CYCAxon3/4-R	CCA CCC TGG CAC ATG AAT		
	CYCBxon2-L	ACG AGT CGT CTT TGG ACT CTT T		
	CYCBxon2/3-R	GCC AAA TCC TTT CTC TCC TGT A		
	UBC-L	CAG CCG TAT ATC TTC CCA GAC T		
	UBC-R	CTC AGA GGG ATG CCA GTA ATC TA		
	GAPDH-L	CAG CCG TAT ATC TTC CCA GAC T		
	GAPDH-R	CTC AGA GGG ATG CCA GTA ATC TA		
	Oct4-exon1/2-L	AAC CAA CTC CCG AGG AGT CCC A		
	Oct4-exon2-R	TCT TCT GCT TCA GCA GCT TGG CA		
	40nt-L	CTC CTC CAC ACA CCA TCA CT		
	out40nt-R	CTG TTC CTG ACC TTG ATC TGA A		
	MERVL-F	ATC TCC TGG CAC CTG GTA TG		
	MERVL-R	AGA AGA AGG CAT TTG CCA GA		
	GFP-L	CTC GTG ACC ACC TTG ACC TA		
	GFP-R	GAA GAA GTC GTG CTG CTT CA		
Bisulfite nested primers	bis40nt(88)L	GTT ATT TTG TAA GGT ATG GAA AAA	out	Length: 640bp
	bis40nt(727)R	ACA AAC ACA AAT AAA TTA CTA ACC A		
	bis40nt(382)L	GAA ATG ATT TTG TGT TTT ATT TGA A	in	Length: 334bp
	bis40nt(715)R	AAA TTA CTA ACC AAC TTA CCT CCC		
	bisGFP3-F	GAG TTG AAG GGT ATY GAT TTT AA	Out	Length: 400bp.
	bisGFP3-R	CCC CCA TAC TCR AAA CAT A		
	bisGFP1-F	TGG GGT ATA AGT TGG AGT ATA A	In	Length: 232bp.
	bisGFP1-R	TTC TCR TTA AAA TCT TTA CTC AA		
	bisOct4(NF)extF	AAT TTT ATT TTT TAG TTT TGA TTT TTG G	Out	Length: 385bp
	bisOct4(NF)intR	TAA ACA AAA ACT AAA AAA TAA CCC CAA AAA T		
bisOct4(NF)intF	TGG GTG GGT GGA GGA GTA GAG TTG TGG GGG			
bisOct4(NF)intR	CTC TCC CAA AAA ATA ACT AAA TAA ACT ATA AAA	In	Length: 282bp.	