

Table S1. List of primer sequences.

Names	Primer sequences
L3MBTL4 RT-PCR primer	5'- GCTCCGCTGGGGATTGCTA -3' (F) 5'- CGTCCTGATCCAAACGCTCT -3' (R)
GAPDH RT-PCR primer	5'-GACCACAGTCCATGCCATCAC-3' (F) 5'-GTCCACCACCCTGTTGCTGTA-3' (R)
L3MBTL4 MSP primer	5'- TTTTTTAGGGGAATGAATATAGAGAAGGAT -3' (UF) 5'- ATTCCACACCCCAAAAAACCAAATAACA -3' (UR) 5'- TTTTAGGGGAACGAATATAGAGAAGGAC -3' (MF) 5'- CCACACCCCGAAAAACCGAATAACG -3' (MR)
L3MBTL4 CDS primer	5'-TGCTCTAGAATGAAACAGCCCAACAGGAAAAGGAAGC-3' (F) 5'- CGCGGATCCTCATCCCCTGACTTCTTGGCCTGAG -3' (R)
L3MBTL4 BSSQ primer	5'- TTGGGATGAAGTATGGGTGAG -3' (F) 5'- CATACTCCCRCCRCACCTAC -3' (R)
L3MBTL4 siRNA	siRNA#1 5'-GCGAUGUUAUAGCCCUUATT-3' (F) siRNA#1 5'-UAAGGGCUAUUAACAUCGCTT-3' (R) siRNA#2 5'-GGAGGCAACACUUCACGAUTT-3' (F) siRNA#2 5'-AUCGUGAAGUGUUGCCUCCTT-3' (R) siRNA#3 5'-GGGAGCAACACUGCAAGUUTT -3' (F) siRNA#3 5'- AACUUGCAGUGUUGCUCCTT-3' (R)

MSP: methylation specific PCR; BSSQ: bisulfite sequencing; siRNA: small interfering RNA; F: forward; R: reverse.

Table S2. List of antibodies.

Name	Manufacturer	Cat No.	Antigenicity	Usage
L3MBTL4	NOVUS	NBP2-15009	Rabbit	WB 1:1000 IP 2µg
	Proteintech	26280-1-AP	Rabbit	IHC 1:50
CyclinA2	Proteintech	18202-1-AP	Rabbit	WB 1:10000
CyclinD1	Proteintech	60186-1-Ig	Mouse	WB 1:10000
CyclinE1	Proteintech	11554-1-AP	Rabbit	WB 1:1000
CDK2	Proteintech	10122-1-AP	Rabbit	WB 1:10000
Caspase3	Proteintech	19677-1-AP	Rabbit	WB 1:500
cleaved-Caspase3	Proteintech	19677-1-AP	Rabbit	WB 1:500
Bcl-2	Proteintech	12789-1-AP	Rabbit	WB 1:2000
Bax	Proteintech	50599-2-Ig	Rabbit	WB 1:2000
ATM	ZENBIO	R23317	Rabbit	WB 1:1000
Phospho-ATM (Ser1981)	CST	58835	Rabbit	WB 1:1000 IHC 1:400
CHK2	ZENBIO	R23920	Rabbit	WB 1:1000
Phospho-CHK2 (Thr68)	ZENBIO	340766	Rabbit	WB 1:1000 IHC 1:400
ATR	CST	2790s	Rabbit	WB 1:1000
Phospho-ATR (Ser428)	CST	2853T	Rabbit	WB 1:1000
CHK1	ZENBIO	R380200	Rabbit	WB 1:1000
Phospho-CHK1 (Ser296)	ZENBIO	R381233	Rabbit	WB 1:1000
Ku70	Proteintech	10723-1-AP	Rabbit	WB 1:2000 IP 2 µg
Ku80	Proteintech	16389-1-AP	Rabbit	WB 1:2000
DNA-PKcs	ZENBIO	200618-6D1	Mouse	WB 1:1000
p-DNAPKcs (Ser2056)	ZENBIO	380800	Rabbit	WB 1:1000 IHC 1:400

γ -H2AX (Ser139)	Cell Signaling	9718	Rabbit	WB 1:1000
β -actin	Proteintech	66009-1-Ig	Mouse	WB 1:50000

IP: immunoprecipitation; WB: western blot; IHC: immunohistochemistry.