

Supplementary Table S2

Sequence for siRNA and PCR

Target sequences of siRNA			
Gene	Name	Target Sequence(5'→3')	Reference
Kdm4b	Kdm4b-si-1	GCCCATGTGTACTTGGAAATT	[1]
	Kdm4b-si-1	GCCCATTATCCCAATGCTGTA	
Kdm5b	Kdm5b-si-1	CTCCGATACATGATTGAAAtt	[2]
	Kdm5b-si-2	TCTTTGCCCTCGGTGTGAC	[3]
	Kdm5b-si-3	GAGATGCACTCCGATACAT	
Realtime PCR primers			
mRNA	Strand	Sequence (5'→3')	Reference
Kdm4b	F	CAATGCTGTACGTGTTGCC	
	R	AAGGGGTTGTTCCCTGTGAG	
Kdm5b	F	AACCGTGAACGGCAACATA	
	R	AGTCCAGAACCACTTGGTC	
Gapdh	F	CATGGCCTTCCGTGTTCCCTA	
	R	GCCTGCTTCACCACCTTCTT	
cDNA-cloning primers			
T7-flag	F	TAATACGACTCACTATAGGGATGGACTACAAAG ACGATGACGATAAA	
Kdm4a	F	CTACAAAGACGATGACGATAAAATGGCTTCTG AATCAGAACTTTGAAC	
	R	CTACTCCATGATGGCCCGGTA	
Kdm4b	F	ATGGACTACAAAGACGATGACGATAAAGGGTC CGAGGACCACAGC	
	R	CTAGAAGGGTGCTCCAGGCC	
Kdm4d	T7-F	TAATACGACTCACTATAGGATGAAGACGAAGT CCACATGTGCTC	
	R	TTAGGGGTCGGAGGTCAATCCC	
Kdm5b	T7-F	TAATACGACTCACTATAGGATGAAGACGAAGT CCACATGTGCTC	
	R	TTACTTTTCGGCTTGGTGCGTC	
GFP	T7-F	TAATACGACTCACTATAGGGATGGTGAAGCAAG GGCGAGG	
	R	TTACTTGTACAGCTCGTCCATGCCGAG	

- [1] DAS P P, SHAO Z, BEYAZ S, et al. Distinct and combinatorial functions of Jmjd2b/Kdm4b and Jmjd2c/Kdm4c in mouse embryonic stem cell identity [J]. *Molecular cell*, 2014, 53(1): 32-48.
- [2] MA P, PAN H, MONTGOMERY R L, et al. Compensatory functions of histone deacetylase 1 (HDAC1) and HDAC2 regulate transcription and apoptosis during mouse oocyte development [J]. *Proceedings of the National Academy of Sciences of the United States of America*, 2012, 109(8): E481-9.
- [3] XIE L, PELZ C, WANG W, et al. KDM5B regulates embryonic stem cell self-renewal and represses cryptic intragenic transcription [J]. *The EMBO journal*, 2011, 30(8): 1473-84.