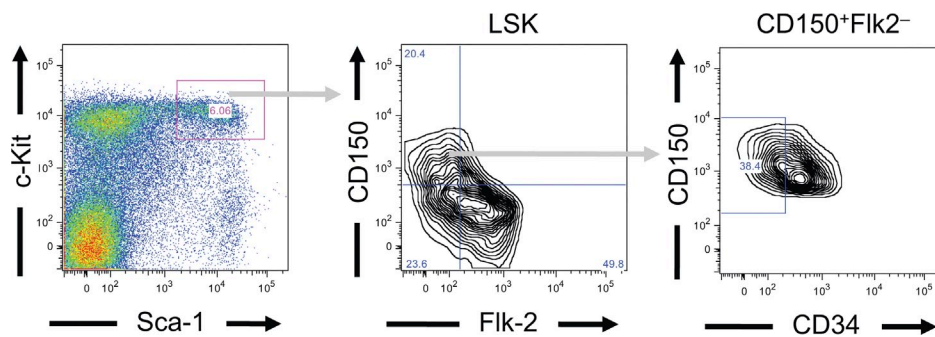
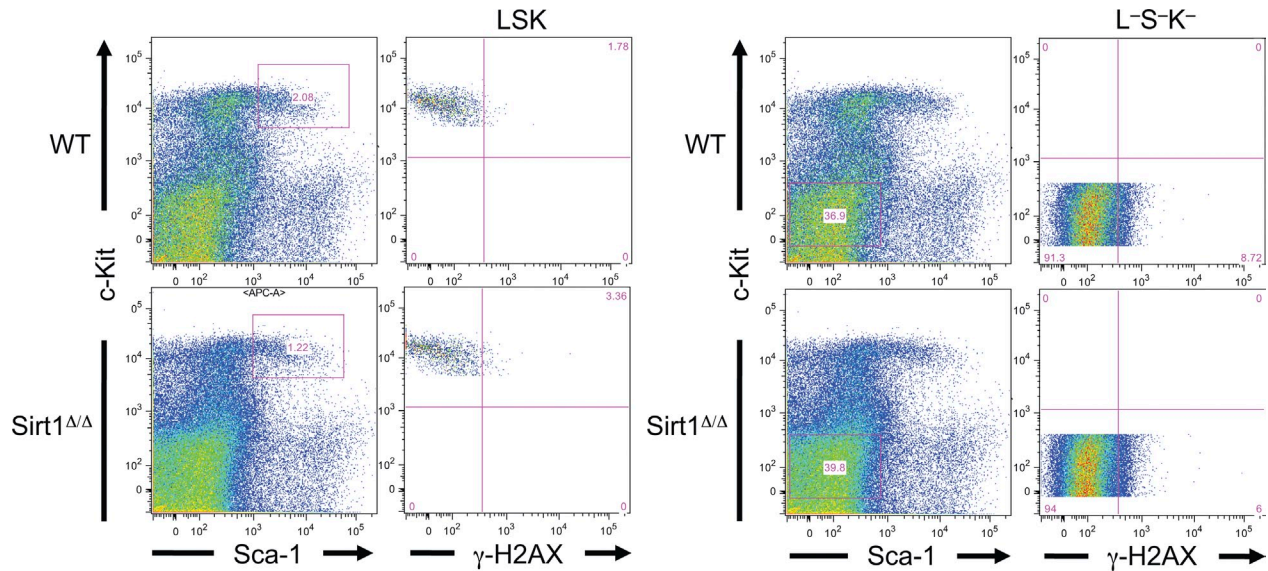


**Figure S1. FACS staining strategies for BM subset analyses.** (A) Gating strategy for FACS analyses of LSK subsets based on expression of CD150, CD48, and Flk2. (B) FACS gating strategy for analysis of BrdU incorporation in the CD150<sup>+</sup>CD34<sup>low</sup> progenitors. A representative histogram for BrdU labeling in Cre (dark gray) and SIRT1<sup>Δ/Δ</sup> (black) mice is shown.



**Figure S2. Gating strategy for LSK subset analysis in Fig. 3 based on CD150 versus Flk2 staining.** CD150<sup>+</sup>Flk2<sup>-</sup> cells were further dissected based on CD34 expression. Data are from a 5-FU-treated SIRT1<sup>Δ/Δ</sup> mouse.



**Figure S3.** Representative FACS graphs for  $\gamma$ -H2AX and c-Kit in gated LSK and Lin<sup>-</sup>Sca-1<sup>-</sup>c-Kit<sup>-</sup> BM cells from mice shown in Fig. 5 G. SIRT1 $\Delta/\Delta$ : Sirt1-E4<sup>fl/fl</sup>; ERT2-Cre; WT: Sirt1-E4<sup>fl/fl</sup> control.

Table S1 is provided as an Excel file.

**Table S2.** PCR primer sequences

PCR type	Forward primer sequence (5'-3')	Reverse primer sequence (5'-3')
<b>ChIP qPCR</b>		
Hoxa9-1	GCTTCCCAGCCCCTCTCTG	CTCCCTCCCTTCTCTCTTCC
Hoxa9-2	CCCCGCCCTCTCCTAAG	TTTGGCCAGCAAAGAAAAGAGC
Hoxa9-a7	GACCAGATGAACCCACAGAGAG	AGTAGCCTGAGAATGAATGGGG
Hoxb8	CAACAACAGACTCCGGCTTT	TATCGTGTGGAGGGAATTGG
Hoxc9	AGGCTGAGTTTTCCGGTTCT	GTGGCGAAAGGAGAGACAAT
Hoxa10	GGGGAACACTAGGTGGGG	CCTAAATCACCGACCAGTTCTG
<b>qRT-PCR</b>		
Sirt1 ex4	TGTCTCCTGTGGGATCCGACTT	AAACAATGCCGAGAATGAGAGCGG
Sirt1 ex3-4	TGGATGATATGACGCTGTGGCAGA	AAGTCAGGAATCCCACAGGAGACA
Hoxa7	CCGAAGCCAGTTTCCGCATCTA	ATTCCTTCTCCAGTTCACGCTCT
Hoxa9	AAACAATGCCGAGAATGAGAGCGG	AAACTCCTTCTCCAGTTCACGCGT
Hoxa10	TGGGCAGTTCCAAAGGCGAAA	CTTCGTGTAAGGGCAGCGTTTCTT
GAPDH	TCAGTGTAGCCCAAGATGCCCTT	CCTGGAGAAACCTGCCAAGTATGA

All qPCRs were performed using SYBR green and an annealing temperature of 58°C.