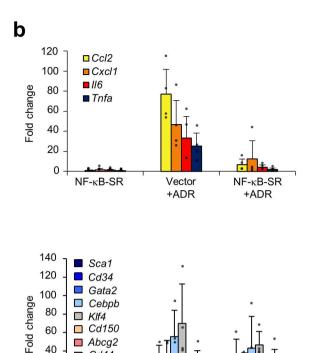


Extended Data Figure 4 | The senescence-associated secretory phenotype (SASP) is dispensable for senescence-associated stemness (SAS) induction. a, Expression of a panel of SASP transcripts 40,57 by qPCR in Suv39h1-regulatable lymphoma cells after five days of ADR  $\pm$  4-OHT exposure, and after two passages in 4-OHT/ADR-free medium (that is, in never senescent and previously senescent cells), showing SASP upregulation in TIS and its downregulation back to baseline levels in senescence-released previously senescent cells. Results represent mean fold induction relative to untreated lymphomas  $\pm$  s.d. (n = 3 biologically independent samples). **b**, Blunting SASP production (top) by NF-κB super-repressor  $I \kappa B \alpha \Delta N$  (NF- $\kappa B$ -SR)-mediated genetic inhibition of NF-κB as the major SASP driver in TIS cells (without compromising their ability to enter TIS)<sup>9,40</sup> did not prevent acquisition of stemness markers



☐ Cd150

■ Abcg2

■ Cd44

Cd133

NF-κB-SR

60

40

20

0

(bottom) by qPCR. Results represent mean fold induction relative to mock-transduced untreated cells  $\pm$  s.d. (n = 4 biologically independent samples). c, Co-expression of the stem-cell marker Sca1 and the TIS marker H3K9me3 by flow cytometry in NF-κB-SR-expressing control; Bcl2 cells exposed to ADR for five days, indicating uncompromised SAS induction. Percentages indicate mean Sca1/H3K9me3 double-positive cells  $\pm$  s.d. (n = 4 biologically independent samples). **d**, ABC transporter activity by flow cytometry in control; Bcl2; NF-κB-SR cells as in c, again demonstrating strong induction of stem-cell-reminiscent ABC transporter activity in TIS cells (compare with Extended Data Fig. 1d) irrespective of their blunted SASP response. Representative plots out of four independent lymphomas shown.

Vector

+ADR

NF-κB-SR

+ADR