

Extended Data Figure 2 | Evaluation of the TARIS method. a, Design for the detection limit experiment. Spike-ins of a known number of HEK293 cells carrying unique transposon integration tags were used in a mix of 10,000 DsRed $^+$ peripheral blood cells from a freshly induced HSB mouse. b, Detection limit chart. Values represent the read number for each clone and for each number of input cells. Both axes are in \log_{10} scale. Values represent the sum of two independent experiments. c, Comparison of the average read number value between TARIS and the LM-PCR method. Values represent mean \pm s.d. of five different transposon tag clones. d, Reproducibility analysis in a non-whole-genome amplified sample with high complexity (2 \times 10 5 bone marrow granulocytes 4 weeks after pulse). e, Reproducibility in a whole-genome amplified sample with low

complexity (863 LT-HSCs 4 weeks after pulse). **f**, Venn diagram showing overlapping transposon tag reads between two TARIS replicates from the same sample high-complexity sample (2×10^5 bone marrow monocytes at 4 weeks after induction). **g**, Venn diagram showing overlapping transposon tag reads between two TARIS replicates from the same low-complexity sample (863 LT-HSCs at 4 weeks after induction). **h**, Contamination analysis between samples from two different mice. The plot represents the read numbers of tags from Lin⁺ populations from mouse 1, and their read number values in Lin⁺ populations in mouse 2. High-confidence tags are selected as those tags with more than 25 reads, and at least 10 times higher read count compared with any of the samples from a separate mouse.