



**Supplemental Figure S6. Characterization of the  $E\mu\text{-Myc};CXCR4^{C1013G}$  phenotype.**

(a) White blood cell count (WBC) of 4 week old mice (WT,  $n = 7$ ;  $CXCR4^{C1013G}$ ,  $n = 14$ ;  $E\mu\text{-Myc}$ ,  $n = 6$ ;  $E\mu\text{-Myc};CXCR4^{C1013G}$ ,  $n = 5$ ).

(b) Quantification of histology scores (1-3) of spleen and liver from 4 week old mice ( $E\mu\text{-Myc}$ ,  $n = 4$ ;  $E\mu\text{-Myc};CXCR4^{C1013G}$ ,  $n = 6$ ). Scorings system details are shown in Supplemental Methods.

(c) WBC of mice with manifest lymphoma ( $E\mu\text{-Myc}$ ,  $n = 5$ ;  $E\mu\text{-Myc};CXCR4^{C1013G}$ ,  $n = 14$ ).

(d) Representative images of immunophenotyping of animals with manifest lymphoma by flow cytometry showing B220 and IgM expression of lymphoma cells ( $E\mu\text{-Myc}$ ,  $n = 7$ ;  $E\mu\text{-Myc};CXCR4^{C1013G}$ ,  $n = 7$ ). Fractions of animals with either IgM+ or IgM- phenotype are indicated in the pie charts.

(e) Quantification of histology scores (1-3) of spleen and liver from mice presenting with manifest lymphoma ( $E\mu\text{-Myc}$ ,  $n = 6$ ;  $E\mu\text{-Myc};CXCR4^{C1013G}$ ,  $n = 6$ ). Scorings system details are shown in Supplemental Methods.

Statistical analyses were performed with one-way ANOVA with Tukey correction for multiple comparisons (a), Student's t test (b), Mann-Whitney  $U$  test (c) and Fisher's exact test (d), \*  $P < 0.05$ , \*\*  $P < 0.01$ , \*\*\*  $P < 0.001$ . Error bars indicate standard deviation (SD).