



Supplemental Figure S4. Characterization of $E\mu$ -TCL1;CXCR4^{C1013G} with symptomatic CLL requiring euthanasia.

(a) Representative images of spleen and lymphatic tissue of mice with symptomatic CLL requiring euthanasia of a $E\mu$ -TCL1 control and a $E\mu$ -TCL1;CXCR4^{C1013G} animal presenting with extensive lymphadenopathy.

(b) Frequencies of spleen CD19+CD5+ and CD3e+ cells by flow cytometry in mice with symptomatic CLL requiring euthanasia ($E\mu$ -TCL1, n = 8; $E\mu$ -TCL1;CXCR4^{C1013G}, n = 8).

(c) Spleen and liver weight of mice with symptomatic CLL requiring euthanasia ($E\mu$ -TCL1, n = 7; $E\mu$ -TCL1;CXCR4^{C1013G}, n = 9).

(d) Quantification of histology scores (1-3) of spleen ($E\mu$ -TCL1, n = 3; $E\mu$ -TCL1;CXCR4^{C1013G}, n = 7) and bone marrow ($E\mu$ -TCL1, n = 4; $E\mu$ -TCL1;CXCR4^{C1013G}, n = 6) of mice with symptomatic CLL requiring euthanasia. Scoring system details are shown in Supplemental Methods.

(e) Representative images of aggressive lymphoma morphology in $E\mu$ -TCL1;CXCR4^{C1013G} animals compared to $E\mu$ -TCL1 animals with symptomatic CLL requiring euthanasia.

(f) Representative images of histiocytic sarcoma in $E\mu$ -TCL1;CXCR4^{C1013G} animals.

Statistical analyses were performed with Student's t test (b and c) or Mann-Whitney U test (d), * P < 0.05, ** P < 0.01. Error bars indicate standard deviation (SD).