



**Fig. S7 V(D)J recombination in ERCC6L2 deficiency.** **a** Representative flow cytometry plots of WT and *Ercc6l2*<sup>-/-</sup> lymphocytes in bone marrow (upper panel) and thymus (lower panel) respectively. Lymphocyte numbers are listed mean ± SD at right. Two-tail unpaired *t*-test was performed. DN: double negative; DP: double positive; SP: single positive. **b** Schematic of pMX-INV V(D)J recombination substrate. The recombination signal sequence (RSS, triangle), hCD4 (probe) and hCD8 are indicated.

Positions of *Nde* I, *Nco* I and *Nhe* I sites are showed. **c** Western blot of XLF and PAXX in the indicated *v-Abl* cell lines. A genotyping PCR result of *Lig4* is showed at right.

**d** Chromosomal V(D)J recombination data from three replicates at indicated times are summarized with mean  $\pm$ SEM. **e** Chromosomal V(D)J recombination analysis in ERCC6L2 and ERCC6L2<sup>N</sup>-complemented *Ercc6l2*<sup>-/-</sup>*Xlf*<sup>-/-</sup> *v-Abl* cells are plotted from 3-4 replicates at Day 4 after STI-571 treatment. Two-tail unpaired *t*-test was performed.