Supplemental Figure 1

Legend to supplemental figure 1. Determination of the leukemic fraction in a mixed population of leukemic and normal cells. Standard Curves of Luc2-Taqman assay created by admixing LICs with nucleated Bone Marrow (Left) or Spleen Cells (Right) in defined ratios. The internal control for PCR amplification is the cellular transferrin receptor gene (Tfrc) present at one copy per haploid genome. As the vast majority (>85%) of leukemic LICs contain single retroviral insertions and the remainder carry only two,7 for all practical purposes, the Luc2 gene is uniformly represented at ~ 0.5 ratio with Tfrc within a 100% leukemic population. Ct is the threshold cycle at which the detected extent of amplification of the TaqMan fluorescence marker exceeds that of an internal dye control present at fixed concentration. Delta Ct = Ct (Internal Control Tfrc) – Ct(Luc2). As the fraction of leukemic cells/total cells declines, Ct(Luc 2) increases. R² is a measure of fitness to a linear slope, with perfect fit = 1.
Legend to supplemental Figure 2. Central nervous system involvement by ALL. Formalin-fixed, decalcified, paraffin-embedded sections from the heads of mice were stained with hematoxylin and eosin and examined for the presence of leukemic infiltration of meninges and brain parenchyma. (A) As previously documented in detail elsewhere,8 vehicle-treated mice 13 days after receipt of LICs showed characteristically high levels of leukemic-cell infiltration into the meningeal layer associated with filling of the space in overlying calvaria. Even at the start of dasatinib plus ruxolitinib therapy 10 days after LIC injection, recipients typically harbored detectable leukemic infiltrates in the meninges. (B) At relapse after 24 days of combined treatment with ruxolitinib and dasatinib (as in text Figure 4A), CNS infiltration was readily apparent.