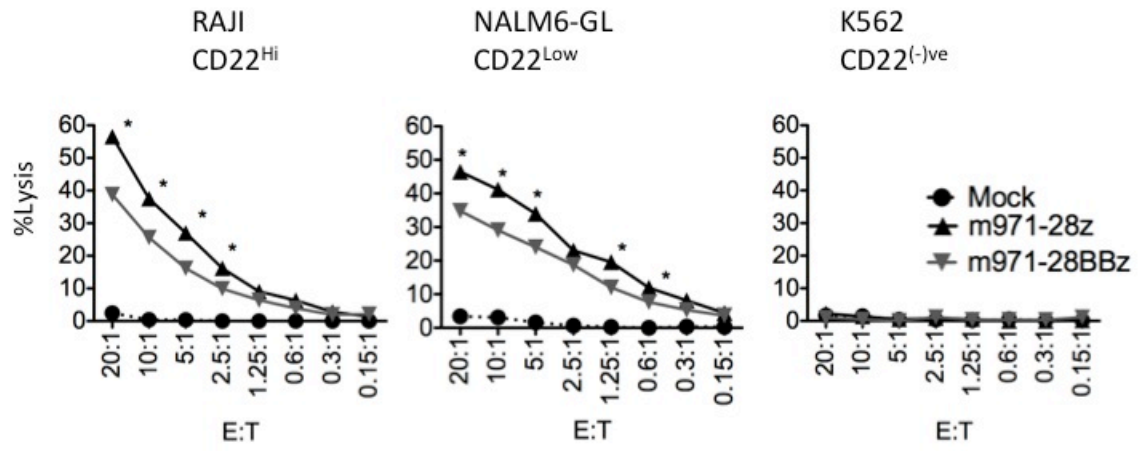


Supplementary figure 1. *Evaluation of m971-scFv CAR.* Second generation (m971-CD28/CD3-zeta, triangle), third generation (m971-CD28/4-1BB/CD3-zeta, inverted gray triangle), and mock (circle) transduced T cells were compared in 4 hour ⁵¹Cr-release assays using Raji, NALM-6, and K-562 line as targets at the E:T ratios listed on the x-axis. Average and SEM of triplicate wells is shown. Significant differences are noted at discrete E:T ratios, *= p < 0.05.

Supplementary figure 2. *Re-stimulation and expansion of CAR-transduced T cells.* T cells were activated with plate-bound OKT3, transduced with vector s/n (mock, CD19, HASH and m971 in 2nd and 3rd generation formats) and cultured in 300 u/ml IL-2 in 6-well plates or flasks. 10 days post activation, CAR-transduced T cells were co-cultured with irradiated A) Raji or B) NALM6-GL cell lines at a 1:1 ratio and fed with fresh IL-2 containing media every 2-3 days. Representative cell counts from one of three separate expansions are shown.

Supplementary figure 3. *In vivo analysis of HA22-CAR-treated animals.* A) T cells were transduced with HA22SH-BBz, HA22SH-28z, and HA22SH-28BBz vectors and analyzed for CAR surface expression by flow cytometry with CD22-Fc (red = CD22 CAR transduced, blue = mock transduced). Percent transduction is listed in each panel. B) Mice were i.v. injected with 0.5×10^6 NALM-6GL, imaged on day 3, at which time 1×10^7 CAR-transduced T cells were injected, and subsequently imaged on days 7 and 17. C) Kaplan-Meier survival curves for each group, analyzed as in figure 6. p values are listed in the figure.

Supplemental Figure 1



Supplemental Figure 2

