**Supplementary Figure S1 *In vivo* orthotopic lung cancer model for the role of miR-155 in chemoresistance.** (A) Injection and treatment schedule for CDDP (green arrows) and anti-miR negative control (NC) or anti-miR-155 liposomal nanoparticles (red stars) for four different treatment groups: mice that were injected with A549-LVEV cells and untreated (group 1), injected with A549-LVEV cells and treated with anti-miR-NC and CDDP (group 2), injected with A549-155LV cells and treated with anti-miR-NC and CDDP (group 3), and injected with A549-155LV cells and treated with anti-miR-155 and CDDP (group 4). (B) Representative pictures of dissected mice belonging to each of the treatment groups described in panel A of this Figure. Tumor nodules are marked by dotted white circles. (C-D) Graphs of the primary tumor size (C) and aggregate mass of nodules in mediastinum (D) of the four treatment groups mentioned above. (E) *In situ* hybridization for miR-155 for each of the four treatment groups mentioned above. CDDP, cisplatin; LVEV, lentivirus empty vector; LV, lentivirus; NC, negative control. Error bars represent SEM. The number of mice in each group is indicated.
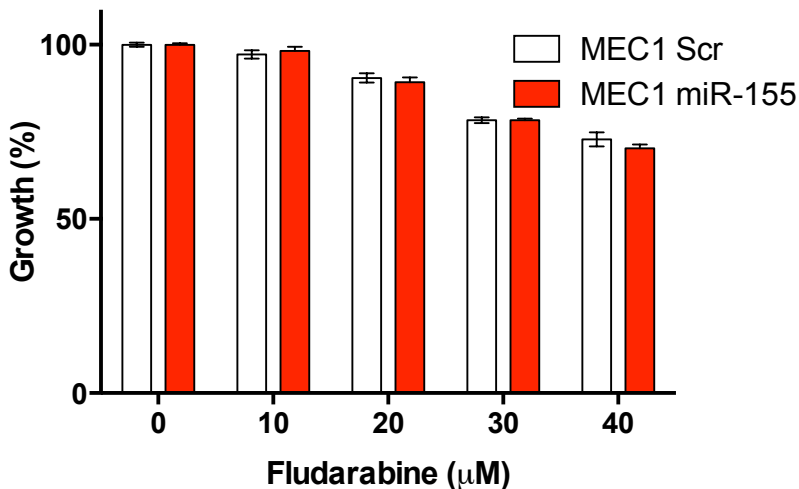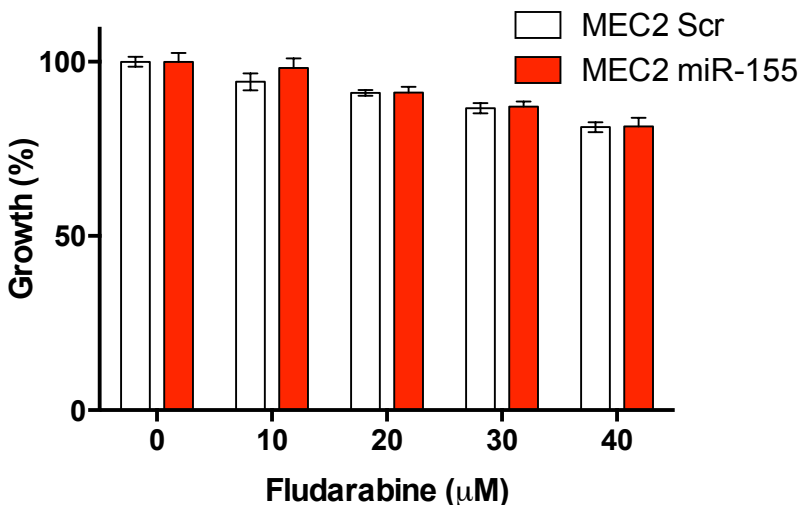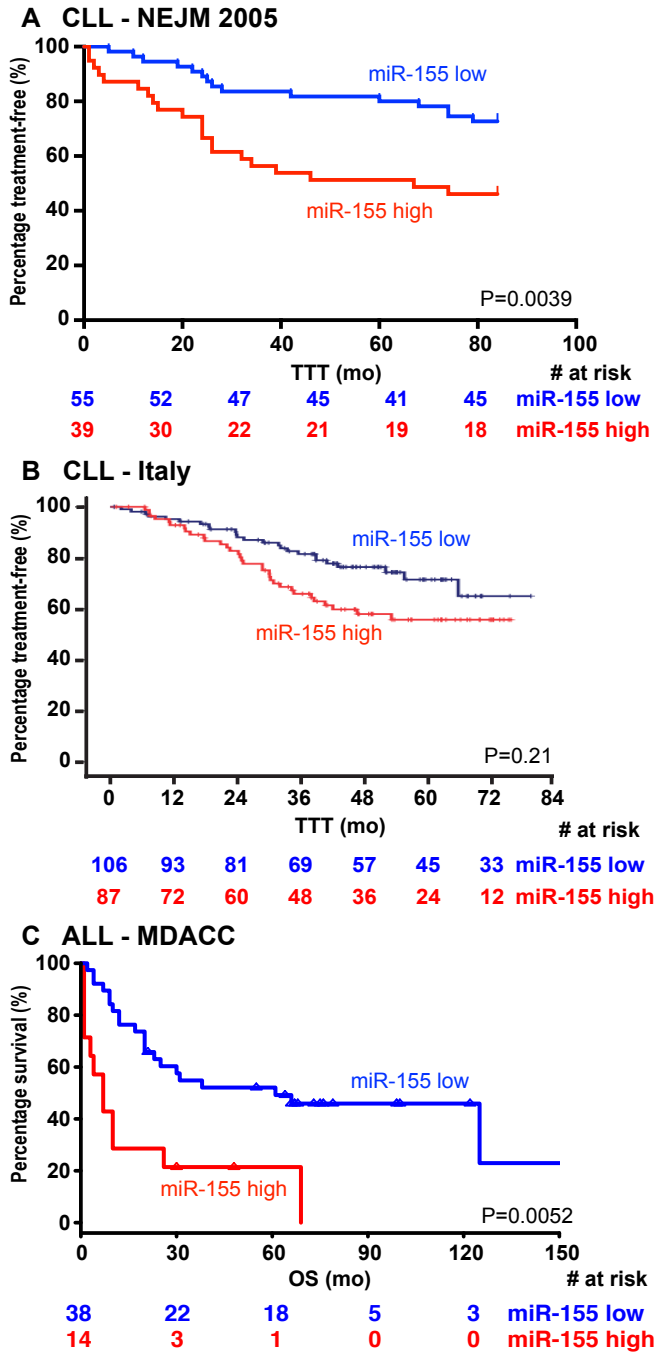
Supplementary Figure S2 Proliferation curves for MEC1 and MEC2 cells treated with fludarabine. Error bars represent SEM, and each assay was performed twice.

Supplementary Figure S3 Clinical correlation of miR-155 expression with survival in leukemia. Kaplan-Meier survival analysis for patients expressing high levels of miR-155 vs. low levels of miR-155 in two CLL cohorts, CLL – NEJM (A) and CLL – Italy (B), and in one ALL cohort, ALL – MDACC (C). The red and blue values below the Kaplan-Meier survival curves represent patients at risk at the specified time points. TTT, time-to-treatment; OS, overall survival; mo, months.