Figure S1: AGS67E But Not AGS67C Exhibits Anti-Tumor Activity In MOLM-13 Xenografts. Molm-13 xenografts were treated with AGS67E or the naked antibody of AGS67E (AGS67C) at 1 mg/Kg, QW for 4 doses. Complete tumor regression was observed with the AGS67E. AGS67C did not demonstrate anti-tumor activity and was comparable to isotype controls.

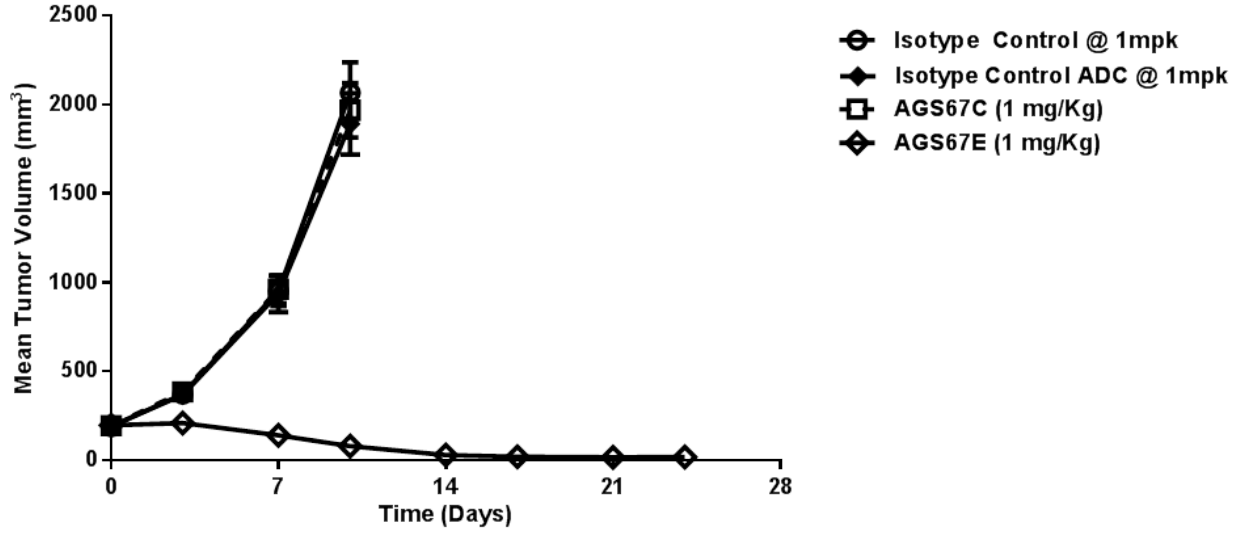
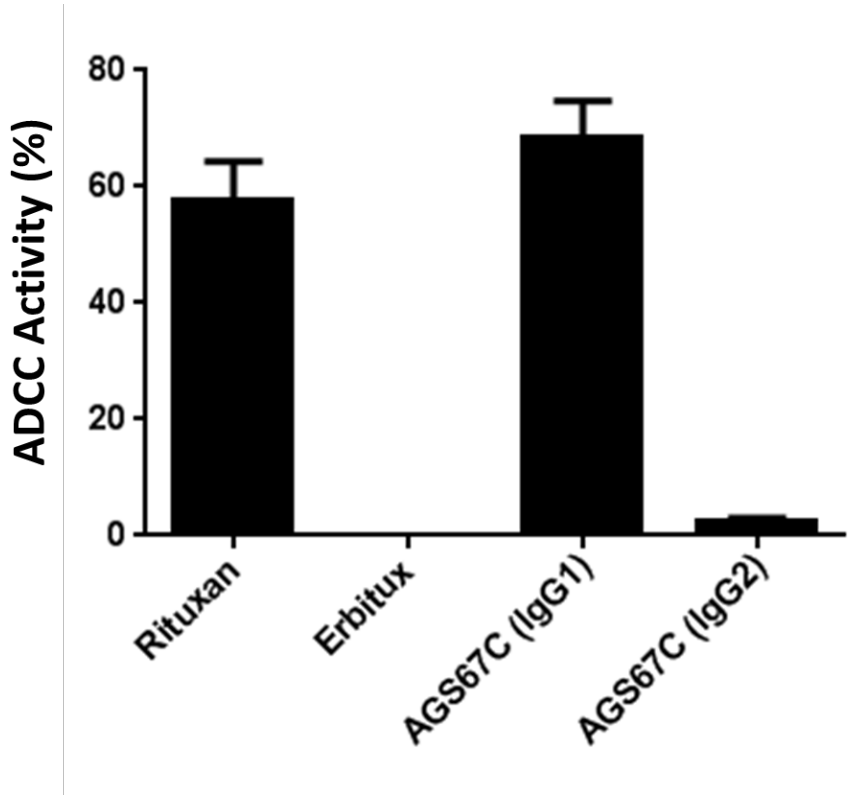


Figure S2: AGS67C IgG1 But Not IgG2 Induces ADCC Activity. Daudi cells were labeled with Chromium-51 and served as the target for effector cells in the presence of AGS67C comprised of a human IgG1 or a human IgG2 backbone. Effector PBMCs were prepared from normal human whole blood and incubated with Daudi cells at an effector:target ratio of 100:1 for 4 hours at 37C. Rituxan and Erbitux were used as positive and negative controls respectively. Percent lysis was plotted as ADCC activity.



METHODS:

Figure S1: Five week-old female CB17/SCID mice (Charles River) were maintained and used at Agensys' animal facility using IACUC approved protocols. 1e6 Molm-13 AML cells were injected into the right flanks of individual SCID mice and tumor volumes were allowed to reach 100-300 mm3. Animals and their tumors were size matched and randomized into treatment and control groups. AGS67C and an isotype control were dosed by intravenous bolus injection at 1.0 mg/Kg, QW for 4 and 2 doses respectively. Tumor growth was monitored using caliper measurements every 3 to 4 days until the end of study. Tumor volume was calculated as $width^2$ x length/2, where width is the smallest dimension and length is the largest. Animals were euthanized when tumors reached 2000 mm3. Mean tumor volume data for each group was plotted over time with standard error bars. A statistical analysis of the tumor volume data for the last day before animal sacrifice was performed using the Kruskal-Wallis test. Pairwise comparisons were made using Tukey's test procedures (2-sided) to protect the experiment-wise error rate. This implementation of Tukey's test was performed on the ranks of the data. The percent tumor growth inhibition in each treated group versus a control group was calculated as [(Control - Control baseline) - (Treated - Treated baseline)] / (Control - Control baseline) x 100%.

Figure S2: The B lymphoma target cell line, Daudi, was harvested and labeled using chromium-51 radioisotope at a concentration of 20 uCi per 1e6 cells for 45 minutes at 37C. The labeled cells were washed 3x with assay buffer (RPMI-1640+ 1% FBS). After the last wash, cells were re-suspended in assay buffer at a concentration of 2e5 cells/mL. Effector PBMCs were isolated from normal whole blood by density centrifugation with Ficoll-Hypaque (GE Healthcare) and concentrated to 20e6 cells/mL. Test samples were diluted in assay buffer to a final concentration of 2.5 ug/mL. Equal volumes of target cells, test sample and effector cells (at a 100:1 effector:target ratio were added to 96-well plates in triplicate and incubated for 4 hours in a humidified 37C incubator. After incubation, the plates were centrifuged (2100 RPM for 1

minute) and a 25 uL aliquot of each supernatant was transferred to 96-well flexi plates (Perkin Elmer) along with 150 uL of OptiPhase Supermix Cocktail (Perkin Elmer). Following a 15 minute incubation, counts per minute (CPM) were measured using a 1450 MicroBeta TriLux Microplate Scintillation Counter (Perkin Elmer). Cytotoxicity was reported as a percentage and calculated as 100 multiplied by (experimental release-spontaneous release) divided by (maximum release-spontaneous release).