Supplementary figure 1 Removal of CD14+/CD11c+ cells prior to γδTCR positive selection significantly increases sample purity. High levels of CD14+/CD11c+ contamination with apparent FITC positivity following isolation of γδT cells from thawed aliquots of PBMC using 2 rounds of positive selection with Miltenyi anti-γδTCR beads (A) is due to uptake of FITC conjugated anti-Hapten breads by CD14+/CD11c+ cells, suggested by clustering of FITC staining within these cells seen using fluorescence microscopy (B). Depleting CD14+ and CD11c+ cells removes these contaminants (C) and significantly improves purity of γδT cell preparations from thawed PBMC aliquots (D).

Supplementary figure 2. Anti-γδTCR clone B1 is a murine IgG1 To confirm that Leaf-purified clone B1 (anti-γδTCR) would coat aAPC we used an APC conjugated antibody of the same isotype (murine IgG1 isotype control) as any interaction of this antibody must be via the Fc region. The APC conjugated IgG1 bound much better than murine IgG2, consistent with previous data (21), which demonstrated that aAPC could be coated in antibody of the IgG1 isotype.

Supplementary figure 3. Variation in γδTCR repertoire before expansion stimulus applied.
Representative plots of three healthy adult donors. Cells are gated on CD3+/γδTCR+ and represented in quadrants indicating Vδ1+, Vδ2+ or $V\delta1^{neg}/V\delta2^{neg}$/γδTCR+

Supplementary figure 4. Killing of GD2+ Kelly by expanded γδT cells in the presence of ch14.18 (black) or anti-CD20 control antibody (grey) Black bars represent killing of GD2+ Kelly cells opsonized with ch14.18, grey bars represent killing in presence of control antibody, target is Kelly, at a range of E:T ratios (10:1-1.25:1; 4hr ^{51}Cr release assay).

Supplementary figure 5. GD2 staining of neuroblastoma cell lines. GD2 expression of five neuroblastoma cell lines used in killing assays in this study. The darker histogram represents an isotype staining control.

Supplementary figure 6. (A) NKG2D expression of expanded

γδT cell subsets. Comparison of NKG2D expression in Vδ1+, Vδ2+ and Vδ1^{neg}/Vδ2^{neg} γδT cells following prolonged (21d) expansion with aAPC+B1, determined using flow cytometry (NKG2D-APC), (n=3). (B) Production of interferon gamma and Granzyme B by Vδ2+ γδT cells expanded with IPP+LCL and Vδ1+ or Vδ1^{neg}/Vδ2^{neg} γδT cells expanded with aAPC+L, in the presence or absence ofPMA/Ionomyvin (representative FACS plots of 3 donors).