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Supplemental Information

Self-Assembled Multivalent Aptamer Nanoparticles with Potential CAR-like Characteristics Could Activate T Cells and Inhibit Melanoma Growth

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Supplementary Data

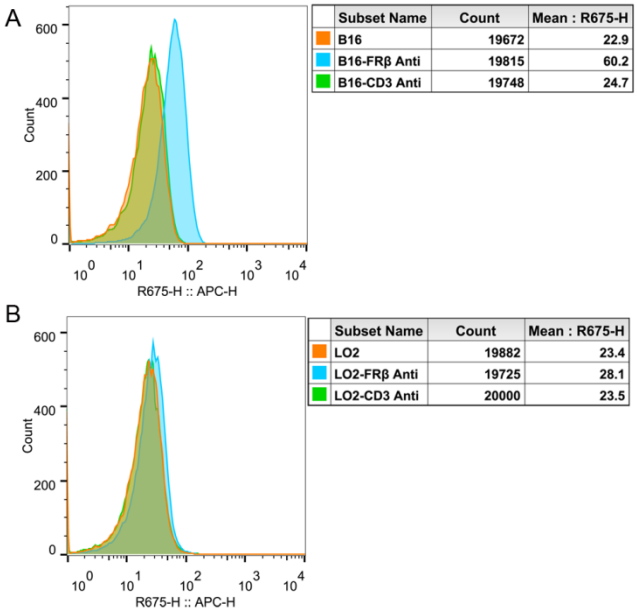

Figure S1. Detection of folate receptor on B16 cells surface. We used flow cytometry to detect the expression of folate receptor on the surface of B16 cells and LO2 cells (Negative control of folate receptor expression). (A) B16 cells with anti-Folate Receptor β (FR-β) antibodies (Biolegend, 153305) or Anti-CD3 antibodies (negative control). (B) LO2 cells with anti-Folate Receptor β (FR-β) antibodies (Biolegend, 391705) or Anti-CD3 antibodies (negative control).

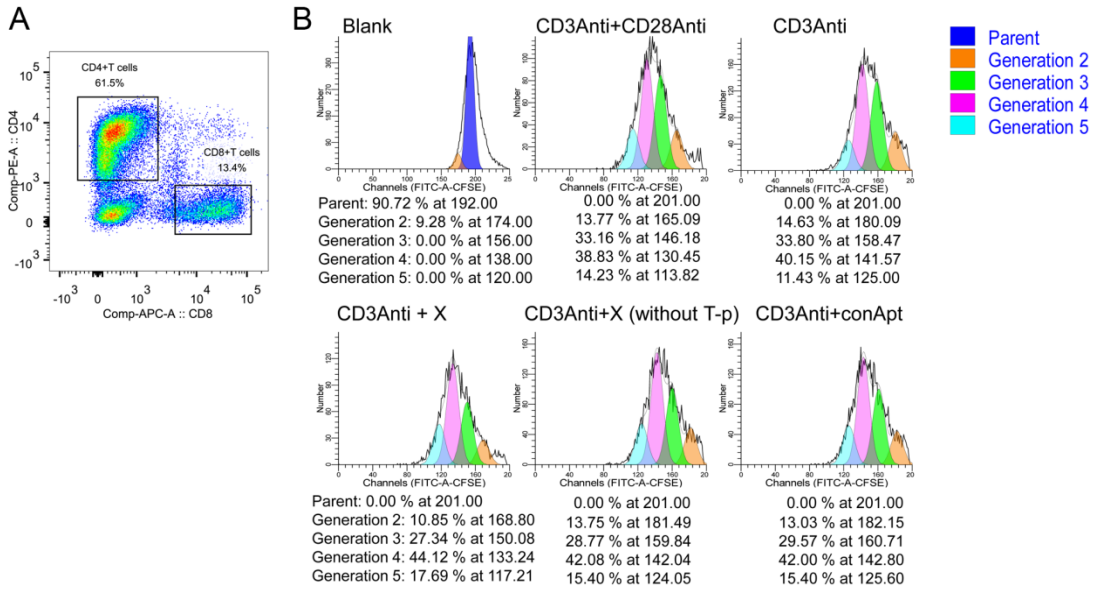

Figure S2. X-Polymer nanoparticles promoted mouse T cell proliferation in vitro. (A) T cell population was treated with PE-labeled Anti-CD4 antibody and APC-labeled Anti-CD8 antibody. (B)Flow cytometry analysis of the CD8+ T cells. T cells were labeled with CFSE, the first activation signal was provided by Anti-CD3 antibodies, and the second signal by Anti-CD28 antibodies or X-polymer nanoparticles.

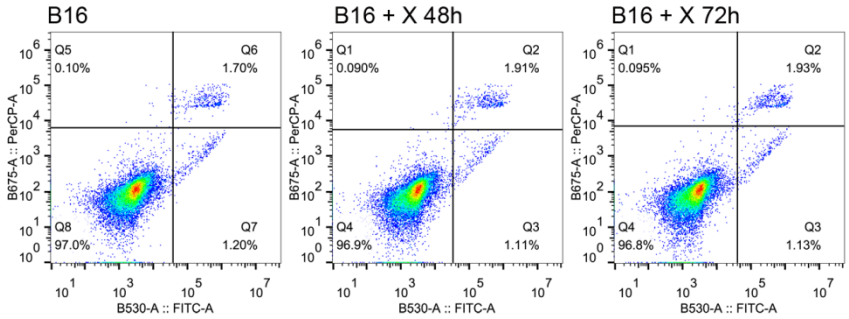

Figure S3. The apoptosis rate of B16 cells co-cultured with X-Polymer nanoparticles. B16 cells (5*10^ 4/well) were seeded in a 96-well plate with X-Polymer nanoparticles (200 pmol/ well) in DMEM full medium for 72 hours. After 48 hours and 72 hours of co-culture, the culture media was removed while cells were trypsinized and resuspended in PBS buffer. The apoptosis rate was analyzed by flow cytometry with Annexin V-FITC and PI (Propidium iodide) dye solution (DOJINDO, AD10).