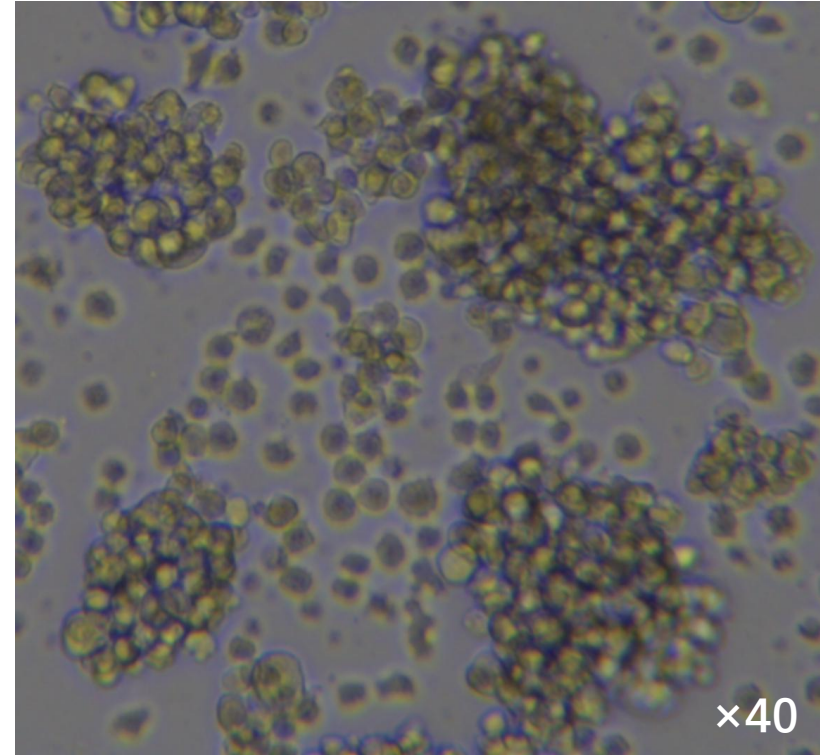


unactivated T cells



activated T cells

Fig.S1 Treating T cells with α CD3/CD28. After treating H9 cells with α CD3/CD28, H9 cells showed agglomeration, which is one of the phenomena that T cells are activated.

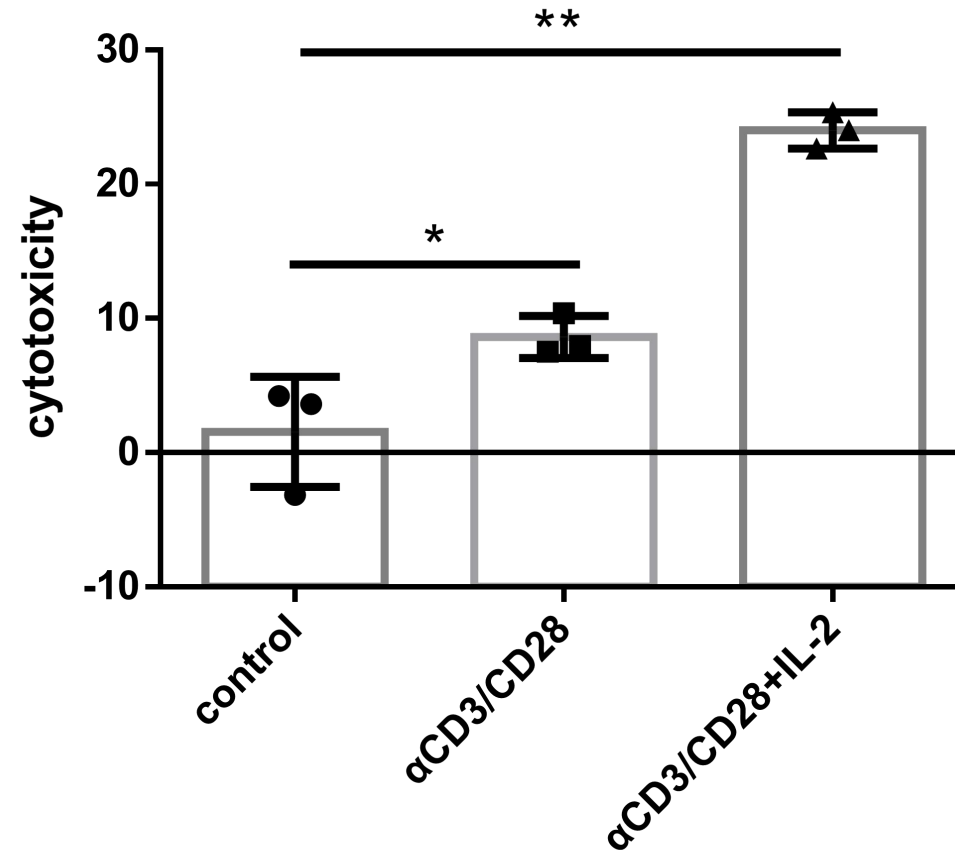


Fig.S2 CCK-8 assay detects the cytotoxicity of T cells for 7721 cells. We tested the cytotoxicity of H9 cells and found that the cytotoxicity of H9 cells for SMMC-7721 cells was significantly enhanced after treated with α CD3/CD28. Furthermore, H9 cells treated with α CD3/CD28 and IL-2 together had stronger cytotoxicity. Therefore, we consider that H9 cells can be activated as effector T cells with tumor-killing functions.

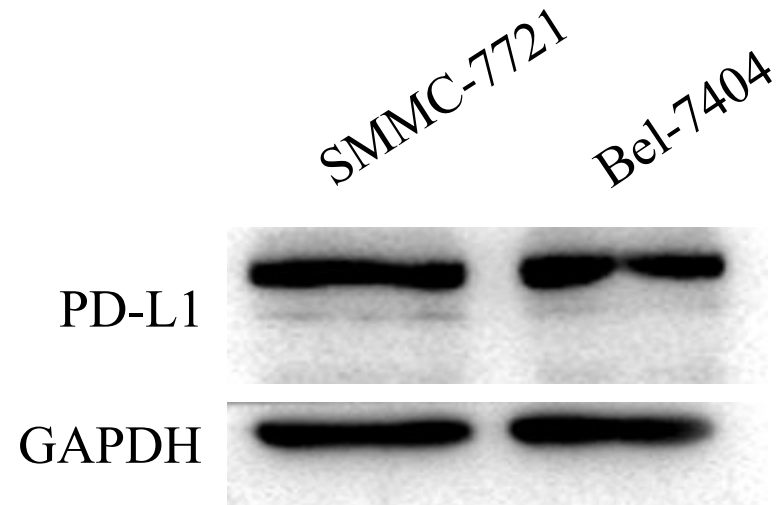
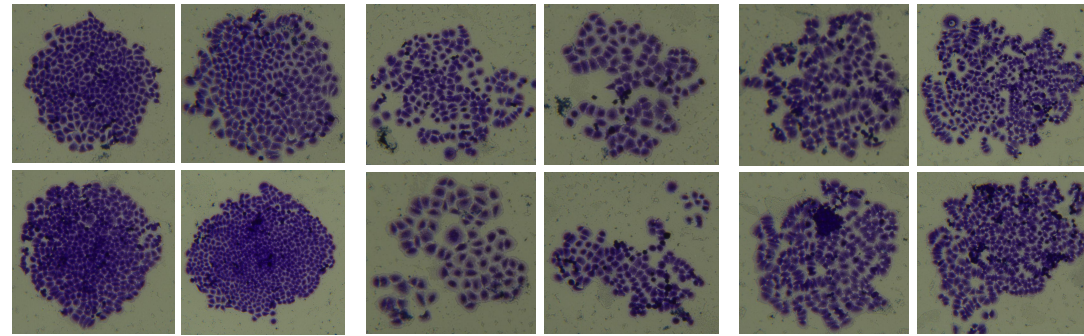


Fig.S3 Western blot was used to detect the expression of PD-L1 protein of SMMC-7721 and Bel-7404 cells.



T cells

Activated T cells

Activated T cells
+TGF- β 1

Fig.S4. The shape of clones of SMMC-7721 cells co-cultured with T cells.