Supporting Information

Selenadiazole Derivative-loaded Metal Azolate Framework Facilitates NK cells Immunotherapy by Sensitizing Tumor Cells and Shaping Immunosuppressive Microenvironment

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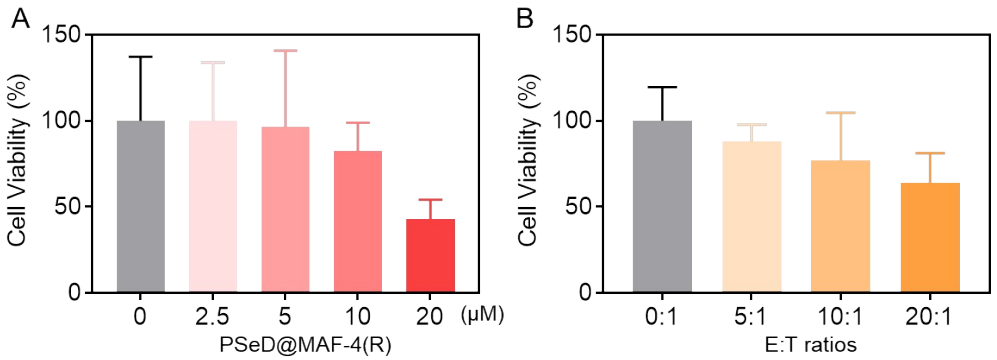

Fig. S1 The effects of PSeD@MAF-4(R) or NK cells treatment alone on the viability of MCF-7 tumor cells. (A) The viability of MCF-7 cells when treated with PSeD@MAF-4(R) of different concentrations (2.5, 5, 10, 20 μM) for 48 h determined by MTT assay. (B) The viability of MCF-7 tumor cells when treated with NK cells at different effector to target cell ratio (E:T) of 5:1, 10:1, 20:1 for 24 h determined be MTT assay. Each value represents means ± SD (n=3).

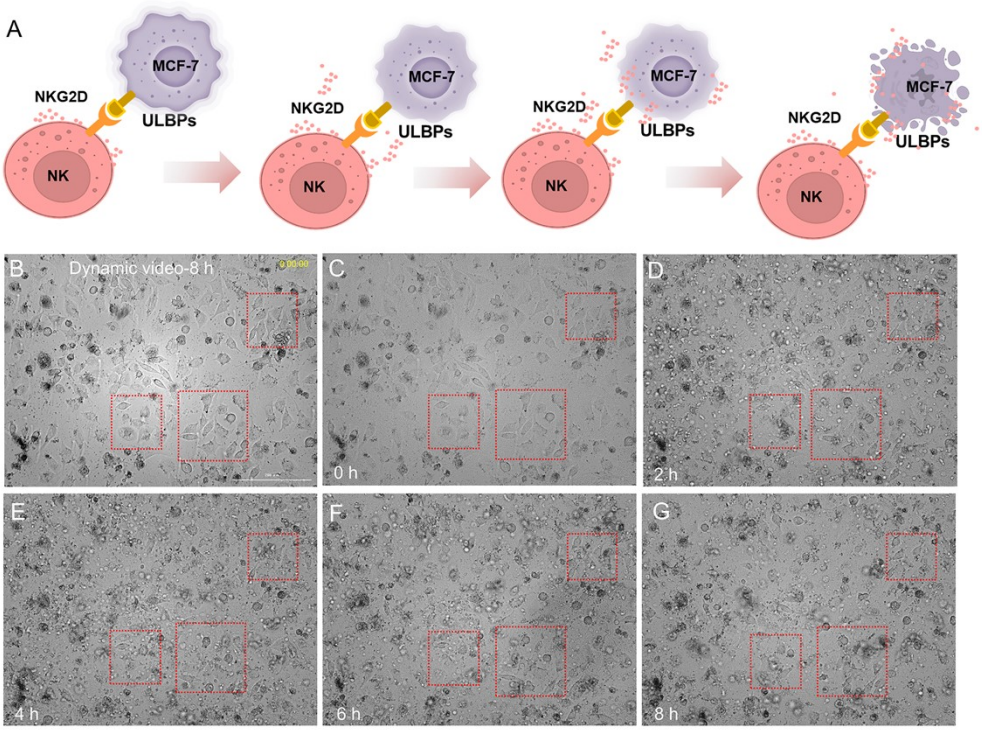

Fig. S2 The dynamic process of NK cells attacking MCF-7 cells for the combination treatment. (A) Proposed diagram of NK cells attacking cancer cells pretreated with PSeD@MAF-4(R). (B) The video recording NK cells attacking drug-pretreated MCF-7 cells within 8 h, which was taken pictures at the interval of 10 minutes within 8 h by Cytation5 microplate imaging system. (C-G) The morphology changes of MCF-7 attacked by NK cells at different time points (0 h, 2 h, 4 h, 6 h, 8 h). Cells highlighted in red dash box were representative ones attacked by NK cells.

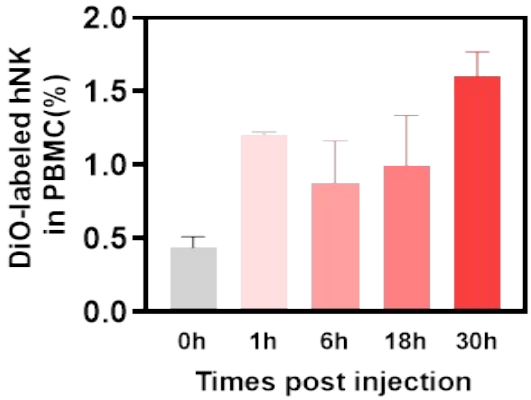

Fig. S3 The survival times of DiO-labeled hNK cells in mice PBMC post injection.

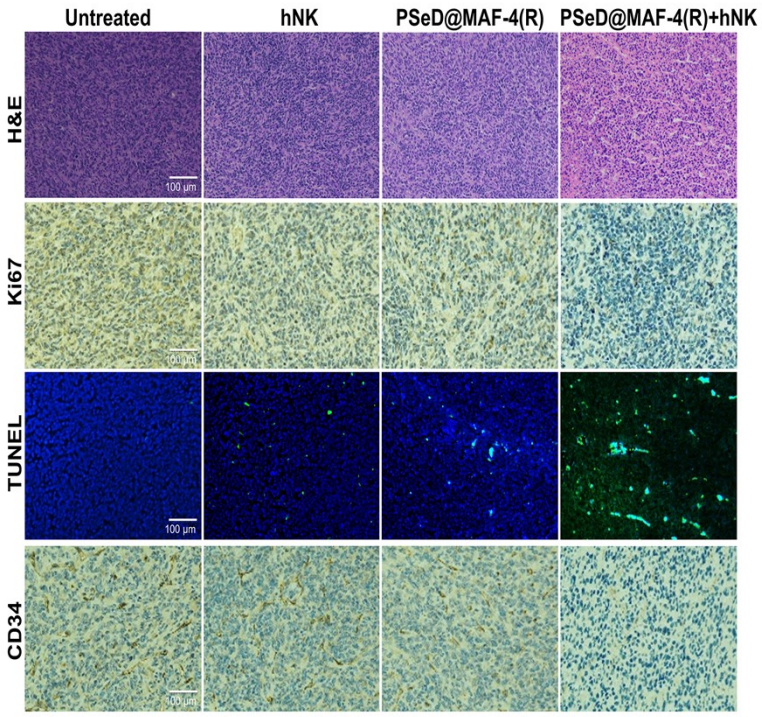

Fig. S4 The effects of different treatments on the structure of tumor tissues, the proliferation and apoptosis of tumor cells and the angiogenesis within tumors analyzed by HE and IHC staining assays.

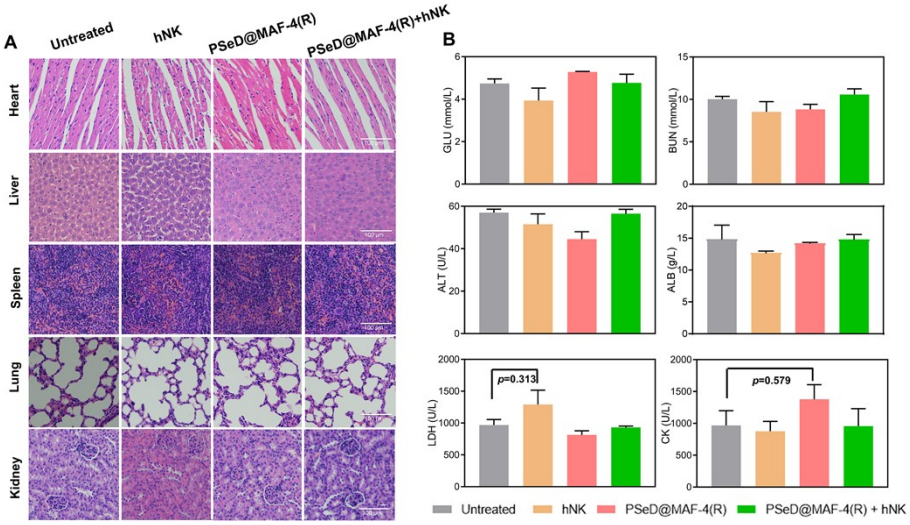

Fig. S5 *In vivo* toxicity profiles of different treatments evaluated by HE staining and blood biochemical analysis. Data were represented as means ± SD (n=3).