

## Supporting Information for:

### Targeting small molecule drugs to T cells with antibody-directed cell- penetrating gold nanoparticles

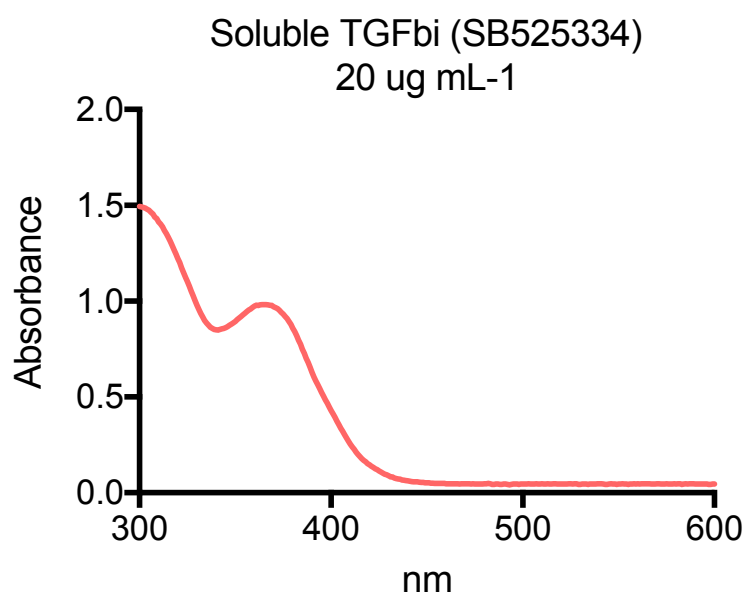
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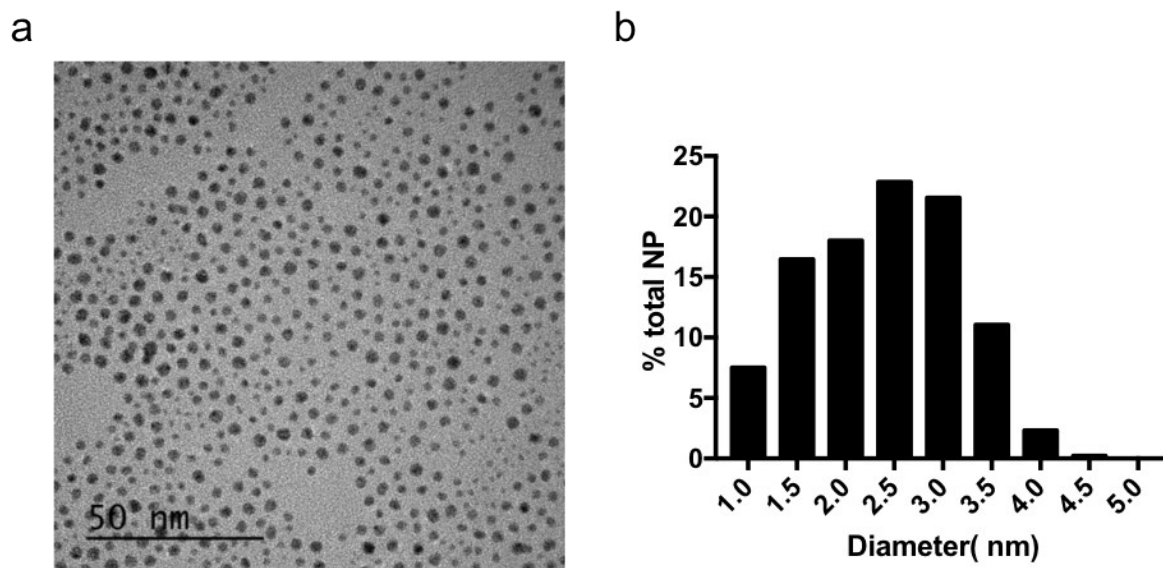
<sup>8</sup>deceased

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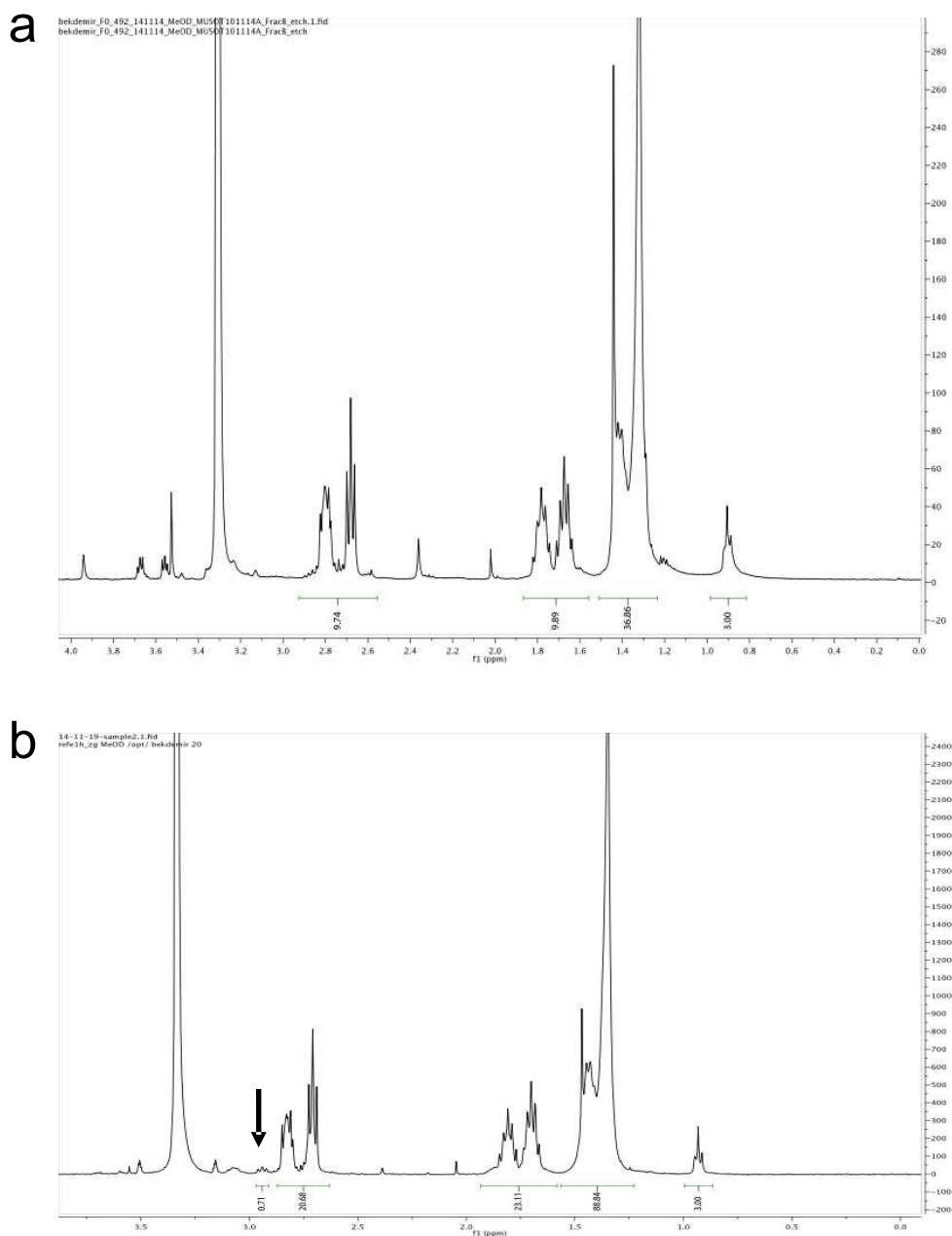
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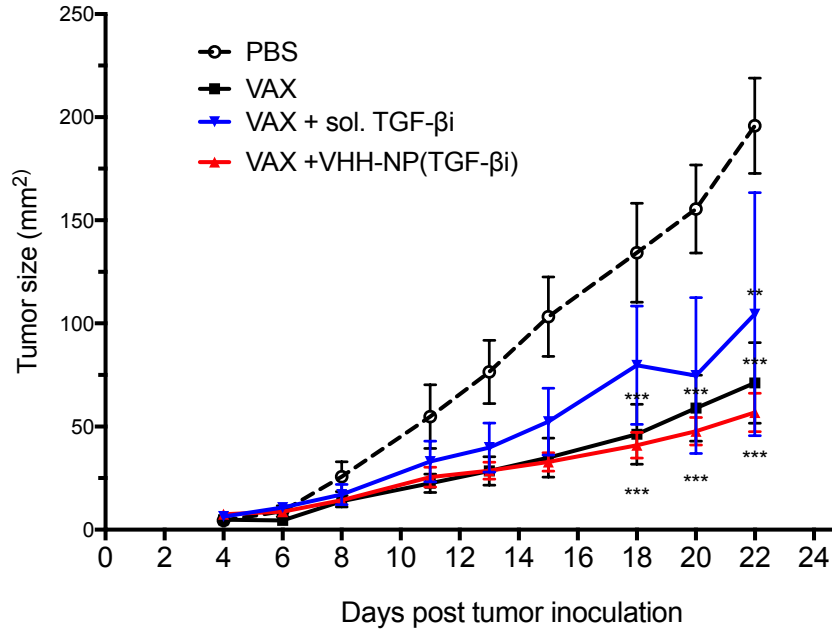
**Figure S1. UV-vis spectrum analysis of soluble drug TGFbi (SB525334).** SB525334 was dissolved in ethanol at 20 ug/mL concentration and measured on a NanoDrop UV-vis spectrometer.



**Figure S2. Size analysis of MUSOT gold nanoparticles.** (a) Representative TEM micrograph of MUSOT gold nanoparticles imaged on a FEI Tecnai TEM. Scale bar = 50 nm. (b) ImageJ analysis of pooled images (total of 905 nanoparticles) revealed the average diameter of gold particles  $2.4 \pm 0.75$  nm .



**Figure S3. NMR analysis of amino ligand exchange on amph-NPs.**  $^1\text{H}$  NMR data of control MUSOT amph-NPs without amino-ligand displacement (a) and 11-amino-1-undecanethiol surface modified MUSOT amph-NPs (b). Arrow indicates peak signature of protons adjacent to the introduced amino groups on the exchanged ligand, showing  $\sim 14\%$  of original ligands were replaced with amine ligands.



**Figure S4. Anti-tumor effect of combined vaccination and TGF-βi inhibitor therapy.** Shown is mean tumor size ( $\pm$ SEM) from groups of C57Bl/6 mice bearing B16F10 flank tumors, treated as described in Fig. 6. \*\*,  $p < 0.01$ ; \*\*\*,  $p < 0.001$  by two-way ANOVA followed by Bonferroni's post test.