

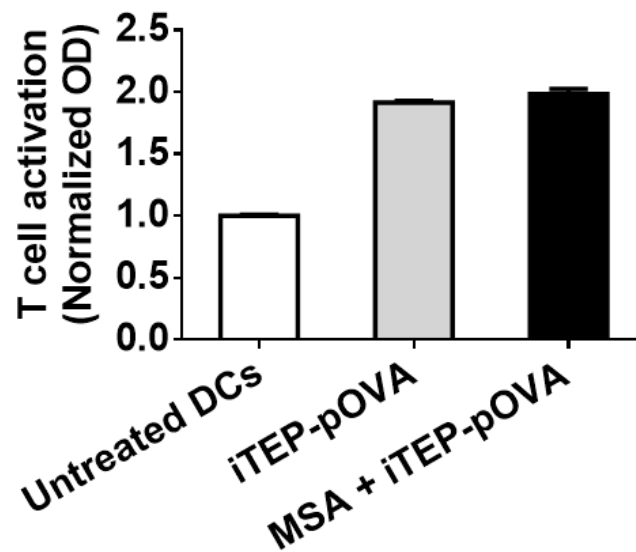
## Supplementary material

### An Albumin Binding Polypeptide Both Targets Cytotoxic T Lymphocyte Vaccines to Lymph Nodes and Boosts Vaccine Presentation by Dendritic Cells

Peng Wang, Peng Zhao, Shuyun Dong, Tiefeng Xu, Xiao He, and Mingnan Chen

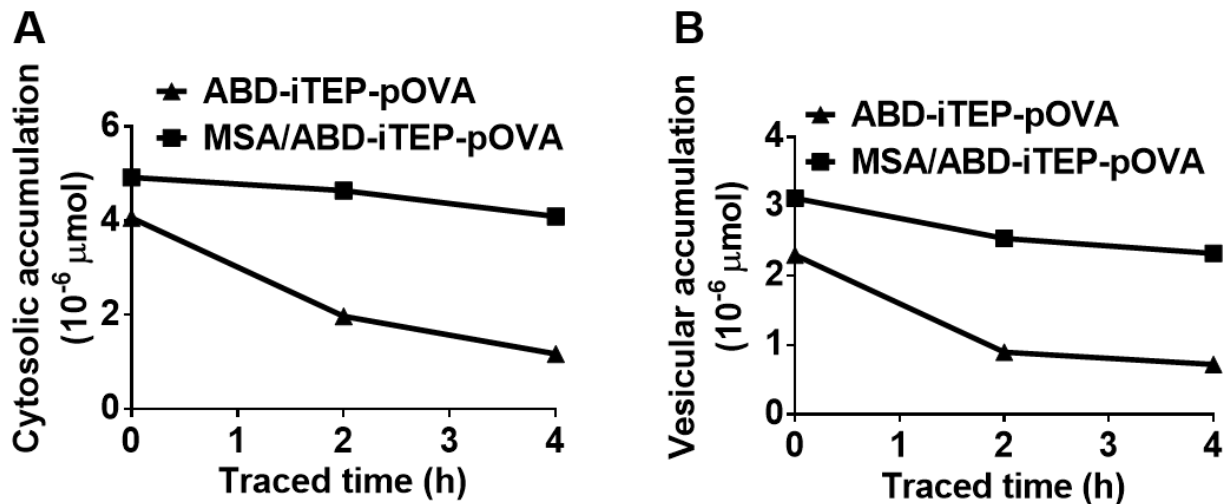
#### Supplementary Figure 1

### Figure S1



**Fig. S1.** Free MSA didn't impact T cell activation of iTEP-pOVA according to the B3Z activation assay. The experiment was repeated in triplicate. Data were shown as mean  $\pm$  SEM.

Figure S2



**Fig. S2.** MSA/ABD-iTEP-pOVA complex was more stable than ABD-iTEP-pOVA in cytosol and endosomes/lysosomes. **(A)** Cytosolic accumulation of the MSA/ABD-iTEP-pOVA complex and free ABD-iTEP-pOVA in DCs. The cytosolic quantities of the two samples were traced after a 2 h incubation of the samples with DCs. **(B)** The accumulation of the MSA/ABD-iTEP-pOVA complex and free ABD-iTEP-pOVA in subcellular compartments (including endosomes and lysosomes) of DCs. The accumulation was traced after a 2 h incubation of the samples. The experiments were repeated in triplicate. Data were shown as mean  $\pm$  SEM.

### Supplementary Figure 3

**The image of Supplementary Figure 3 is provided at the end of this document. A high resolution image file (10.2M) is available if requested.**

**Fig. S3.** Fluorescent image shows the accumulation of the MSA/ABD-iTEP-pOVA complex (**A**) and free ABD-iTEP-pOVA (**B**) in vesicular compartments (endosomes and lysosomes) of DCs after a 2 h incubation of the samples with DCs. Scale bar, 20  $\mu\text{m}$ .

**Table S1. Pharmacokinetic metrics of ABD-iTEP and iTEP**

	$AUC^a$ ( $\mu\text{g h } \mu\text{L}^{-1}$ )	$C_{max}^b$ ( $\mu\text{g } \mu\text{L}^{-1}$ )	$T_{max}^c$ (h)	$t_{1/2}(\text{abs})^d$ (h)	$t_{1/2}(\text{elim})^e$ (h)
ABD-iTEP	$1.20 \pm 0.05$	$32.82 \pm 1.46 \times 10^{-3}$	$12.36 \pm 0.63$	$2.78 \pm 0.19$	$51.57 \pm 0.23$
iTEP	$0.29 \pm 0.01$	$8.34 \pm 0.53 \times 10^{-3}$	$12.79 \pm 1.32$	$4.19 \pm 0.61$	$24.13 \pm 0.67$

<sup>a</sup>  $AUC$ : area under the curve

<sup>b</sup>  $C_{max}$ : the peak serum concentration after administration

<sup>c</sup>  $T_{max}$ : the time to reach  $C_{max}$

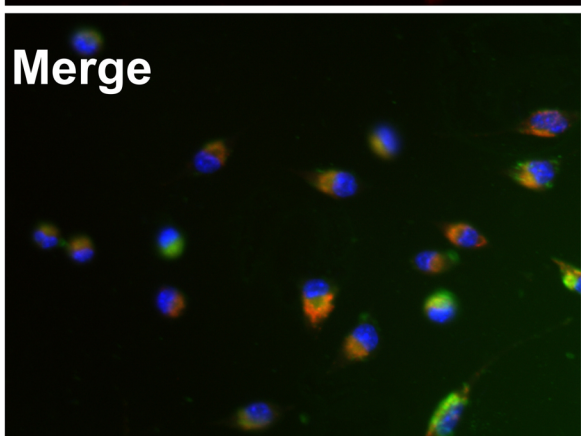
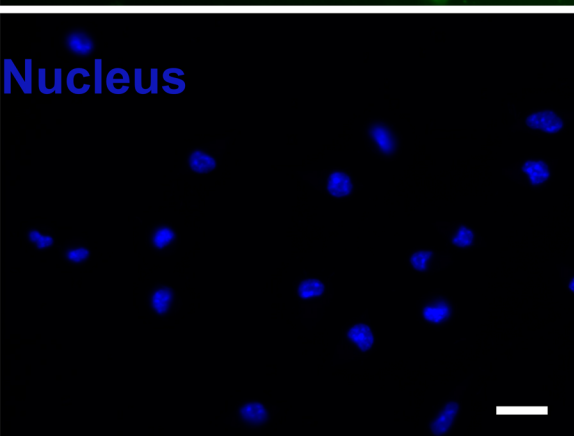
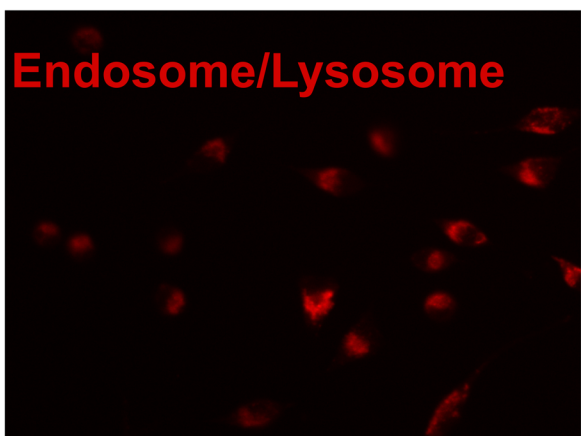
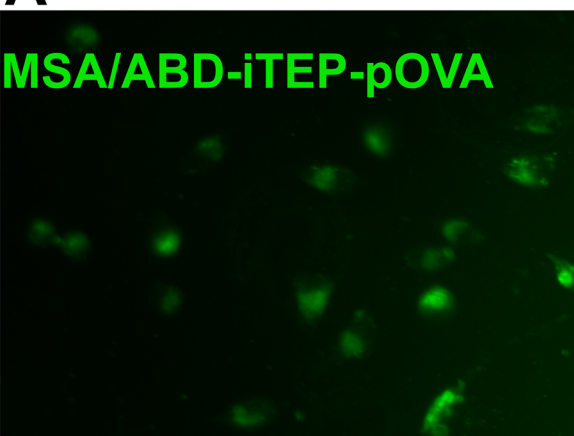
<sup>d</sup>  $t_{1/2}(\text{abs})$ : absorption half-life

<sup>e</sup>  $t_{1/2}(\text{elim})$ : elimination half-life

Data were shown as mean  $\pm$  SEM, N=3.

# Figure S3

## A



## B

