

# SUPPLEMENTAL INFORMATION

**Figure. S1**



Figure. S1 Western blots of exosomes extracted from supernatants of HEK293T cells.

**Figure S2**

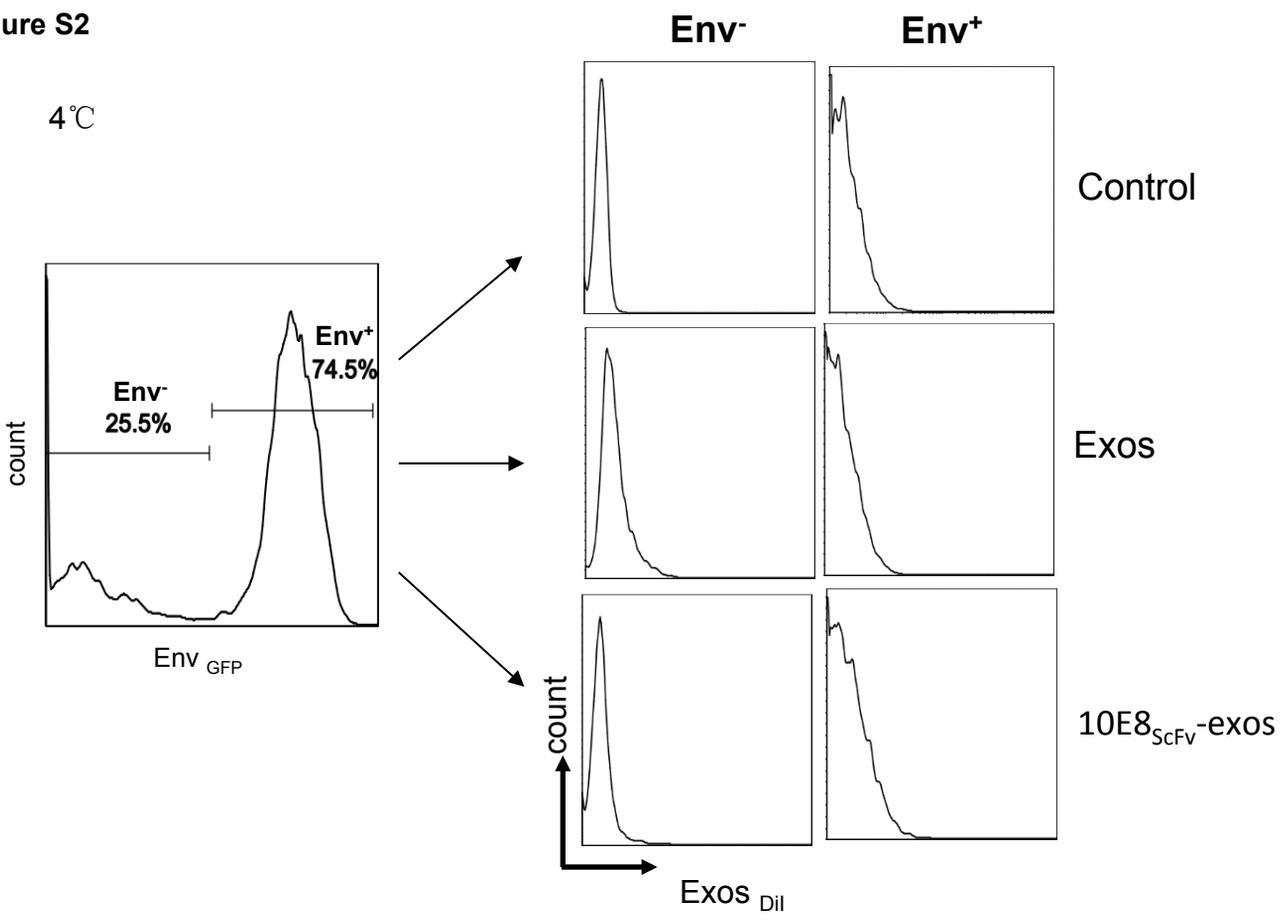


Figure S2 Uptake of fluorescently labeled exosomes by Env<sup>+</sup> or Env<sup>-</sup> cells was detected using flow cytometry. Dil-labeled exosomes were incubated with the Env<sup>+</sup> or Env<sup>-</sup> cells at 4°C for 24 hours.

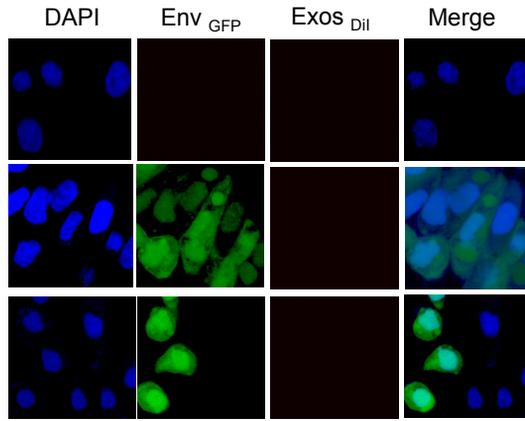
**Figure S3**4°C Dil-labeled 10E8<sub>ScFv</sub> exosomes

Figure S3 Confocal microscopic images of colocalization of exosomes and the target cell membrane at 4°C.

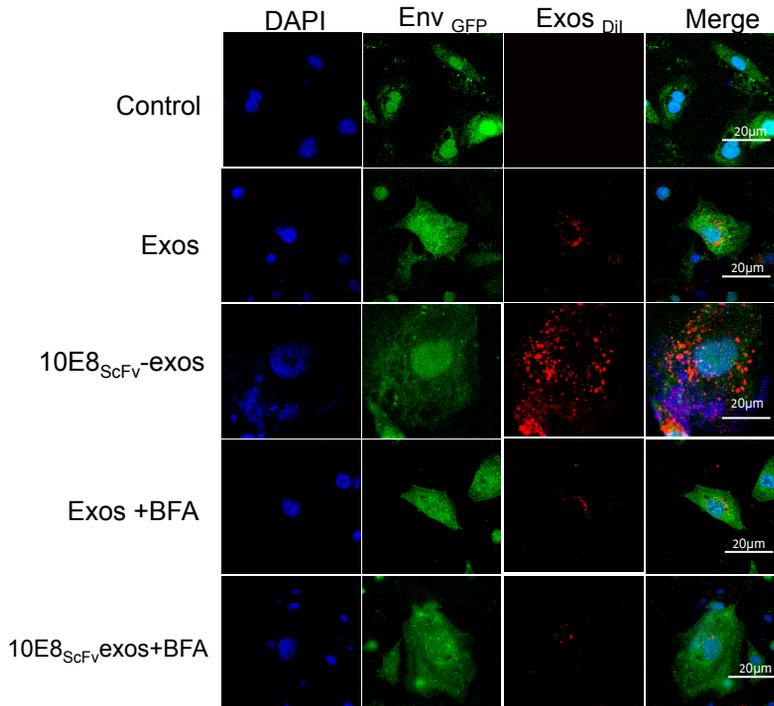
**Figure S4**

Figure S4 10E8<sub>ScFv</sub>-exos adsorption onto Env<sup>+</sup> cells were blocked by Brefeldin A.

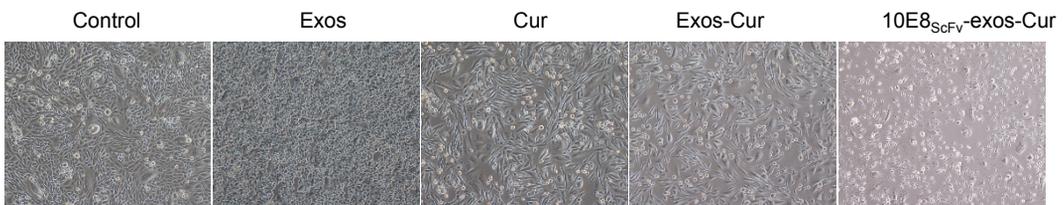
**Figure S5**

Figure S5 Images of the Env<sup>+</sup> cells after treated with medium (control), Exos, Exos-Cur, 10E8<sub>ScFv</sub>-exos, 10E8<sub>ScFv</sub>-exos-Cur, or free Cur for 24 h.

**Figure S6**

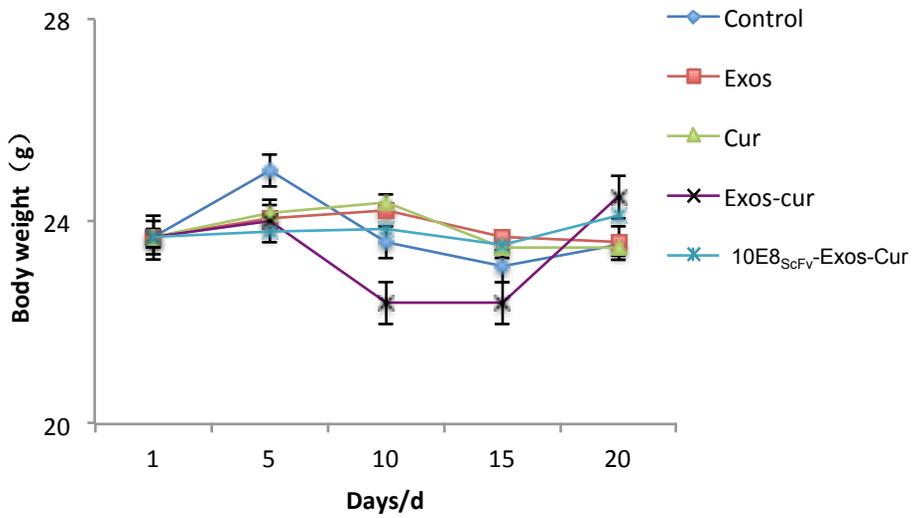


Figure S6 Body weight of control, Exos, Exos-Cur, 10E8<sub>ScFv</sub>-exos-Cur or Cur treated mice.

**Table S1**

Groups	Tumor suppression rate
Control	--
Exos	11.49%
Cur	37.93%*
Exos-Cur	25.86%*
10E8 <sub>ScFv</sub> -exos-Cur	71.26%*

Table S1 Tumor suppression rate of control, Exos, Exos-Cur, 10E8<sub>ScFv</sub>-exos-Cur or Cur treated mice.

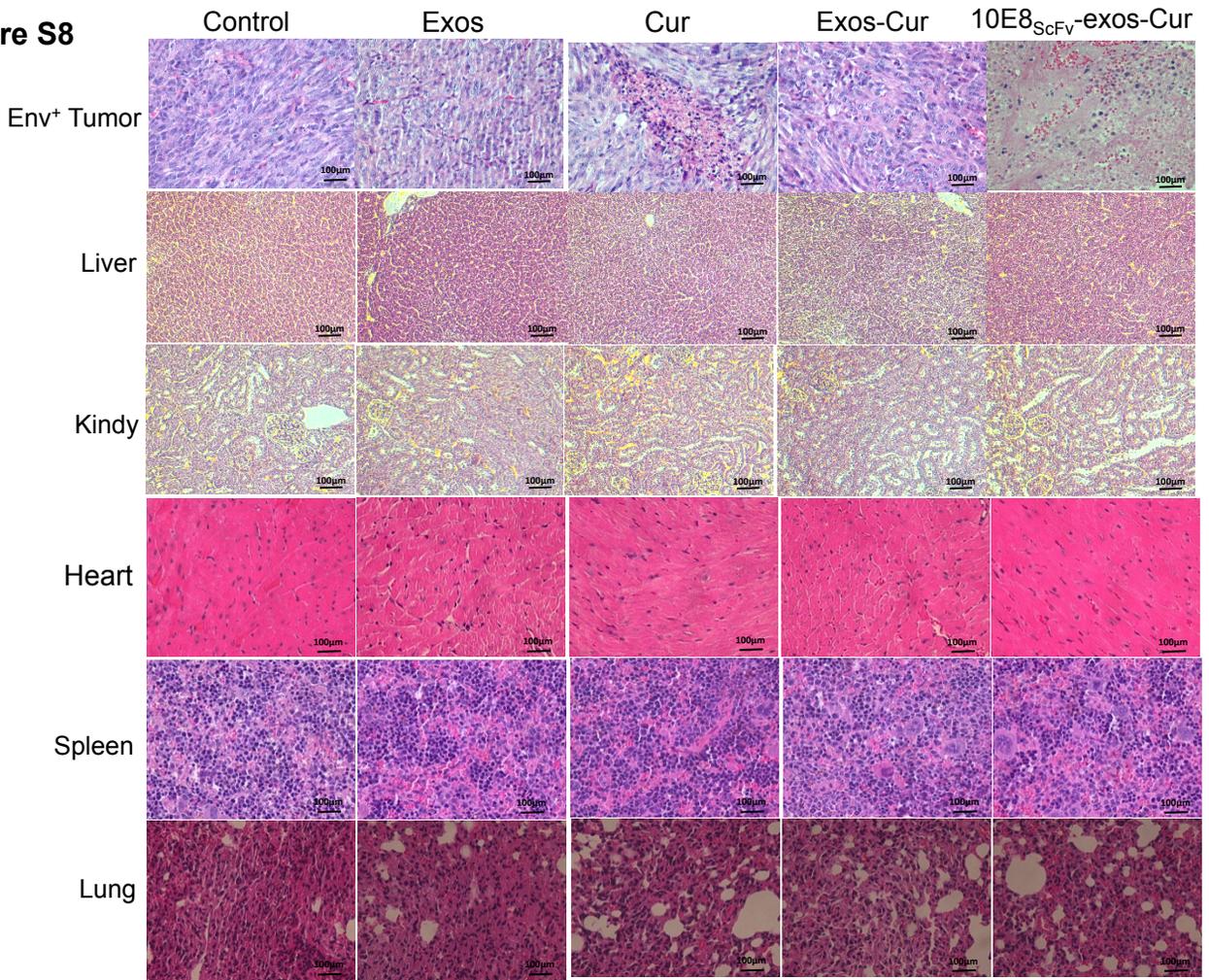
**Figure S8**

Figure S8 Various organs from mice treated as described in (A, B) were stained with hematoxylin and eosin (H&E). No overt tissue damage was observed in 10E8<sub>ScFv</sub>-exos-Cur treated mice.

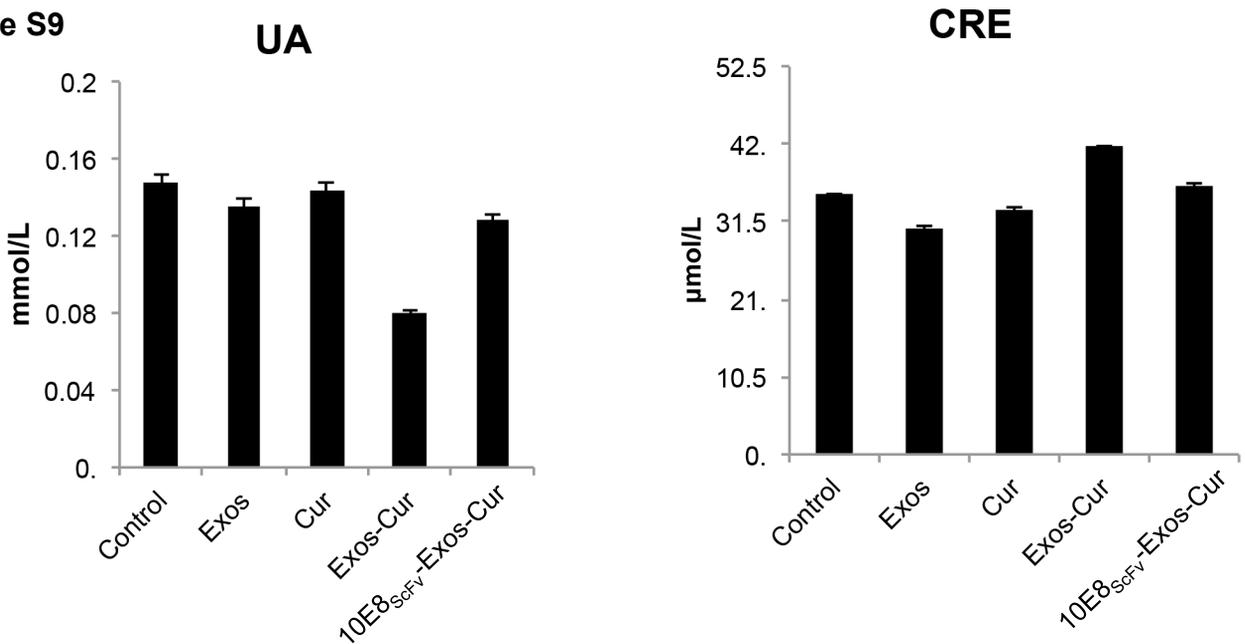
**Figure S9**

Figure S9 Evaluation of the toxicity profile of 10E8<sub>ScFv</sub>-exos-Cur. Measurement of serological markers of liver and kidney. Serum was collected from tumor-bearing mice injected with agents as described in (A) and the activities of CRE (A) and UA (B) were measured.

**Figure S10**

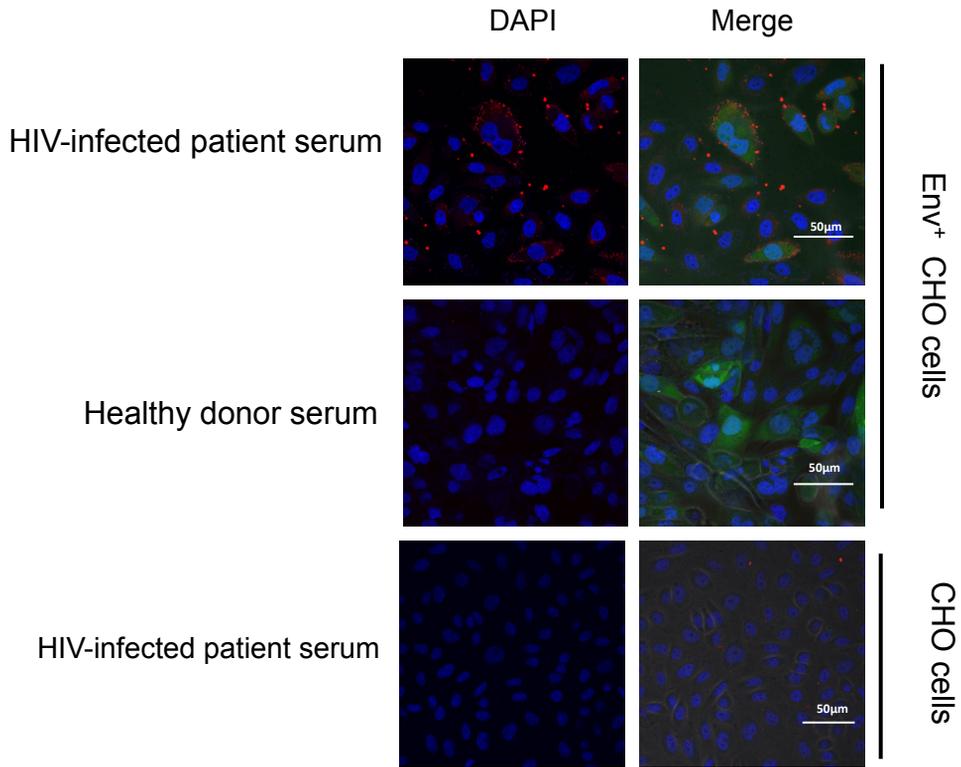


Figure S10 Confocal microscopic images show colocalization of the HIV-infected patient serum and the membrane protein Env fused with GFP on the target CHO cells.

**Figure S11**

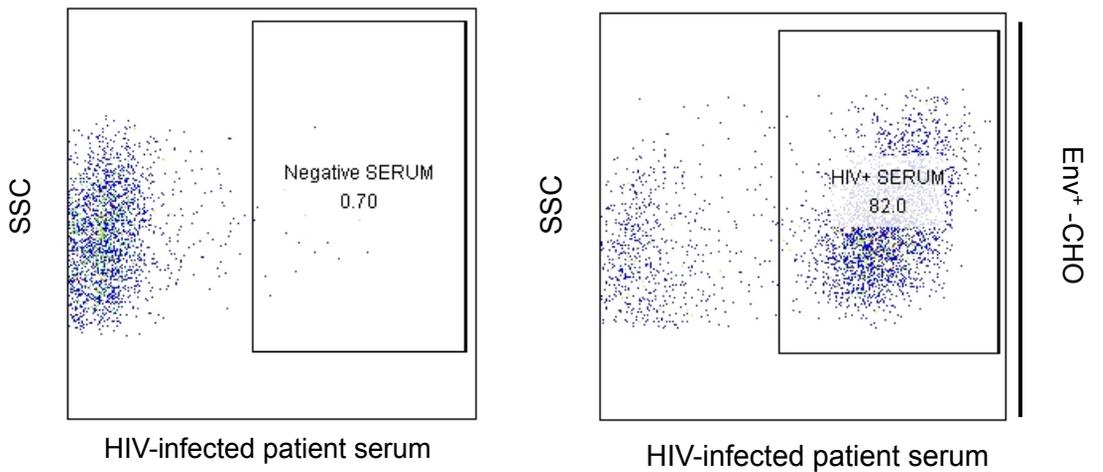


Figure S11 The membrane protein Env the surface marker of Env<sup>+</sup> cells were detected by flow cytometry for HIV-infected patient serum.