



**S1 Fig. SHIV and SIV-CAR constructs.** SIV and SIV-CAR constructs. SHIV-CAR and CD4-MBL CAR had CD28 and CD3 zeta for signal transduction. To prevent virus infection to CAR-T cells, antigen binding moieties consist of domain 1 and 2 from CD4 molecule. For comparison of length of linker for target recognition, we used SHIV-ACR with 35AA and 10 AA linkers for CD4 and 17b CAR. SIVmAb CAR is designed to use 4-1BB and CD3 zeta signaling domain expecting better in vivo persistence resulting from maintenance of  $T_{SCM}$  and  $T_{CM}$ .