Antibody-dependent-cellular-cytotoxicity-inducing antibodies significantly affect the post-exposure treatment of Ebola virus infection

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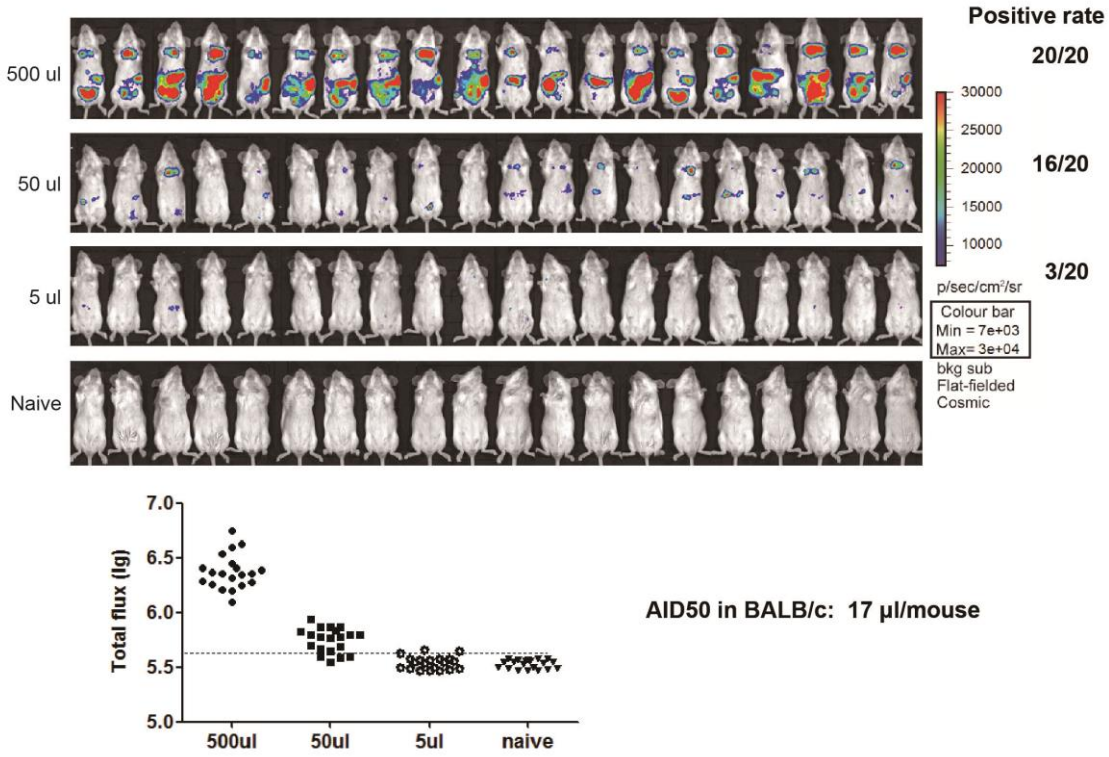
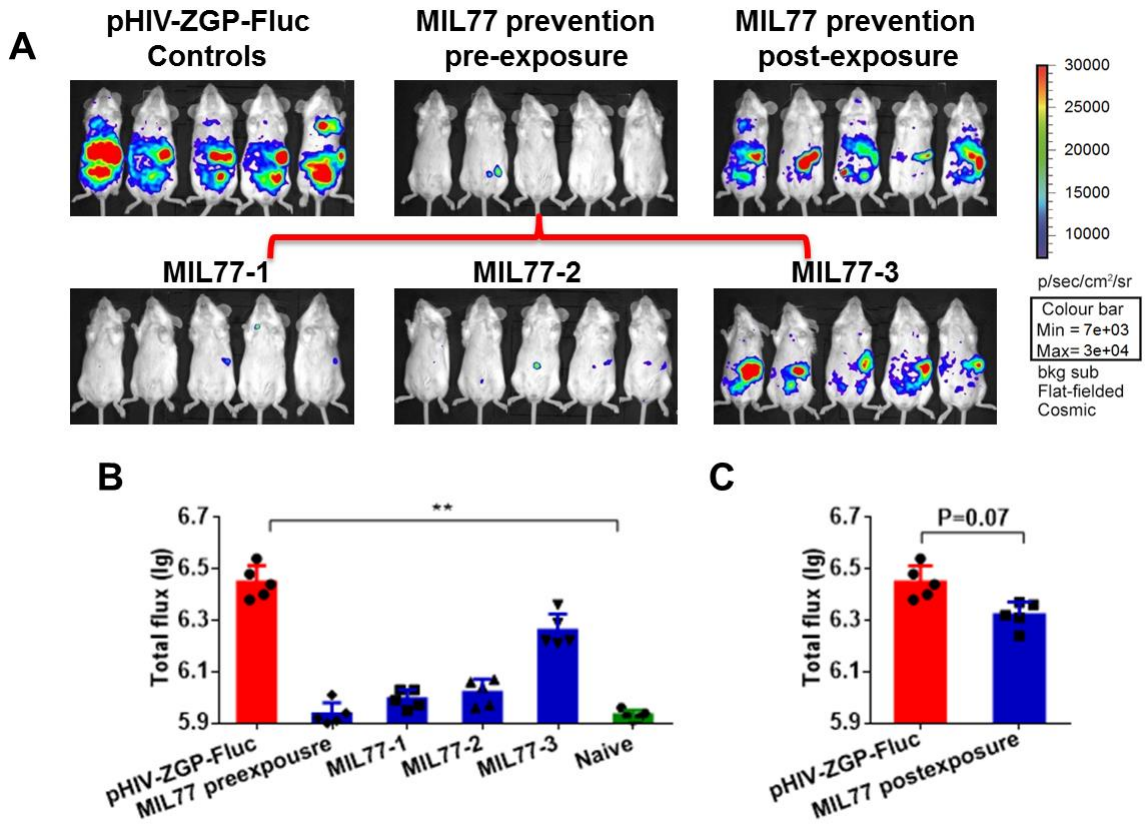
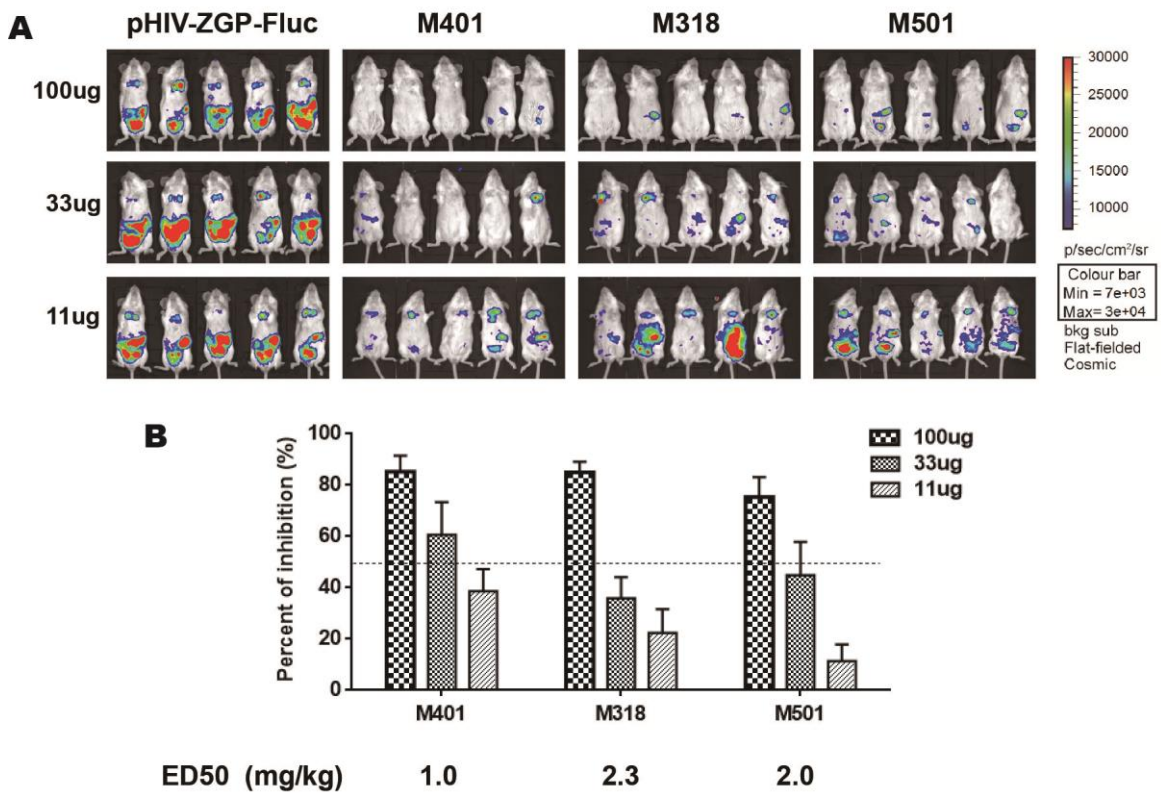


Supplementary Figure 1. Determination of 50% animal infectious dose (AID_{50}) of pHIV–ZGP–Fluc in BALB/c mice. BALB/c mice were inoculated with 500, 50, or 5 µl of pHIV–ZGP–Fluc virus (1×10^7 $TCID_{50}$ per ml) per mouse *via* the intraperitoneal route (n = 20). Total flux was analysed at 4 dpi. Positive infection rates are shown on the right. AID_{50} of pHIV–ZGP–Fluc in BALB/c mice was determined with the Reed–Muench method.



Supplementary Figure 2. Preventive efficacies of MILL77 antibodies in mice before and after exposure to the pseudovirus *in vivo*. A, MILL77 monoclonal antibodies and cocktail were administered before (−3 days and −4 h) and after (12 h and 2 days) pHIV–ZGP–Fluc infection. pHIV–ZGP–Fluc-infected mice without antibody inoculation were used as controls. Bioluminescent images were acquired at 4 dpi. B–C, Preventive efficacies were calculated as total flux values. Statistically significant differences (P values) are shown above. Significant preventive efficacies were detected in the MILL77 monoclonal antibody and cocktail pre-exposure groups (B), but not in the MILL77 cocktail post-exposure group (C). ** indicates extremely significant difference.



Supplementary Figure 3. Antibodies dose-dependently induce ADCC. (A) Mice were treated twice (at 12 h and 2 days post-infection) with each mAb (M401, M318, or M501) in graduated doses (100, 33, or 11 μg per dose). pHIV–ZGP–Fluc-infected mice without mAb treatment were used as controls. Bioluminescent images were acquired at 4 dpi. (B) The 50% effective doses (ED_{50}) of the mAbs that induced ADCC were calculated to be 1.0, 2.3, and 2.0 mg/kg, respectively, according to the inhibition of the total flux (shown at the bottom).