Real-Time Imaging of Single HIV-1 Disassembly with Multicolor Viral Particles

Yingxin Ma^{1, 3}, Zhike He⁴, Tianwei Tan³, Wei Li¹, Zhiping Zhang¹, Shuang Song¹, Xiaowei Zhang¹, Qinxue Hu¹, Peng Zhou⁴, Yuntao Wu⁵, Xian-En Zhang^{2,*}, Zongqiang Cui^{1,*}

Figure S1. (A) Fluorescence imaging of HIV^{Ru} stained with DiO or anti-p24 antibody (FITC). (B) Fluorescence imaging of HIV^{TC} stained with DiO or anti-p24 antibody (FITC). The right inset is a zoomed view of the colocalized fluorescent signals. (C) The control of HIV^{WT} stained with ReAsH and anti-p24 antibody (FITC). (D) The control without transfection of plasmid was stained with the Ru(II) complex and anti-p24 antibody (FITC). (Scale bar: 2 μ m)

Figure S2. (A) The infectivities of HIV^{EGFP} and HIV^{Ru-EGFP} particles were measured in HIV indicator cell TZM-bl. (B) Fluorescence imaging of HIV^{EGFP} stained with DiD or anti-p24 antibody (TRITC) (scale bar: 2 μ m). The right inset is a zoomed view of the colocalized fluorescent signals.

Figure S3. The infectivities of HIV^{TC-EGFP} particles were measured in the HIV indicator cell TZM-bl.

Movie S1. Single-particle imaging of HIV-1 RNAs releasing from the capsid.

Movie S2. Single-particle imaging of HIV-1 RNAs separating from the matrix.

Movie S3. Single-particle imaging of the capsid dissociating from the matrix.

Movie S4. Single-particle imaging of the sequential multi-stage disassembly of the RNA, capsid and matrix.