Figure S1

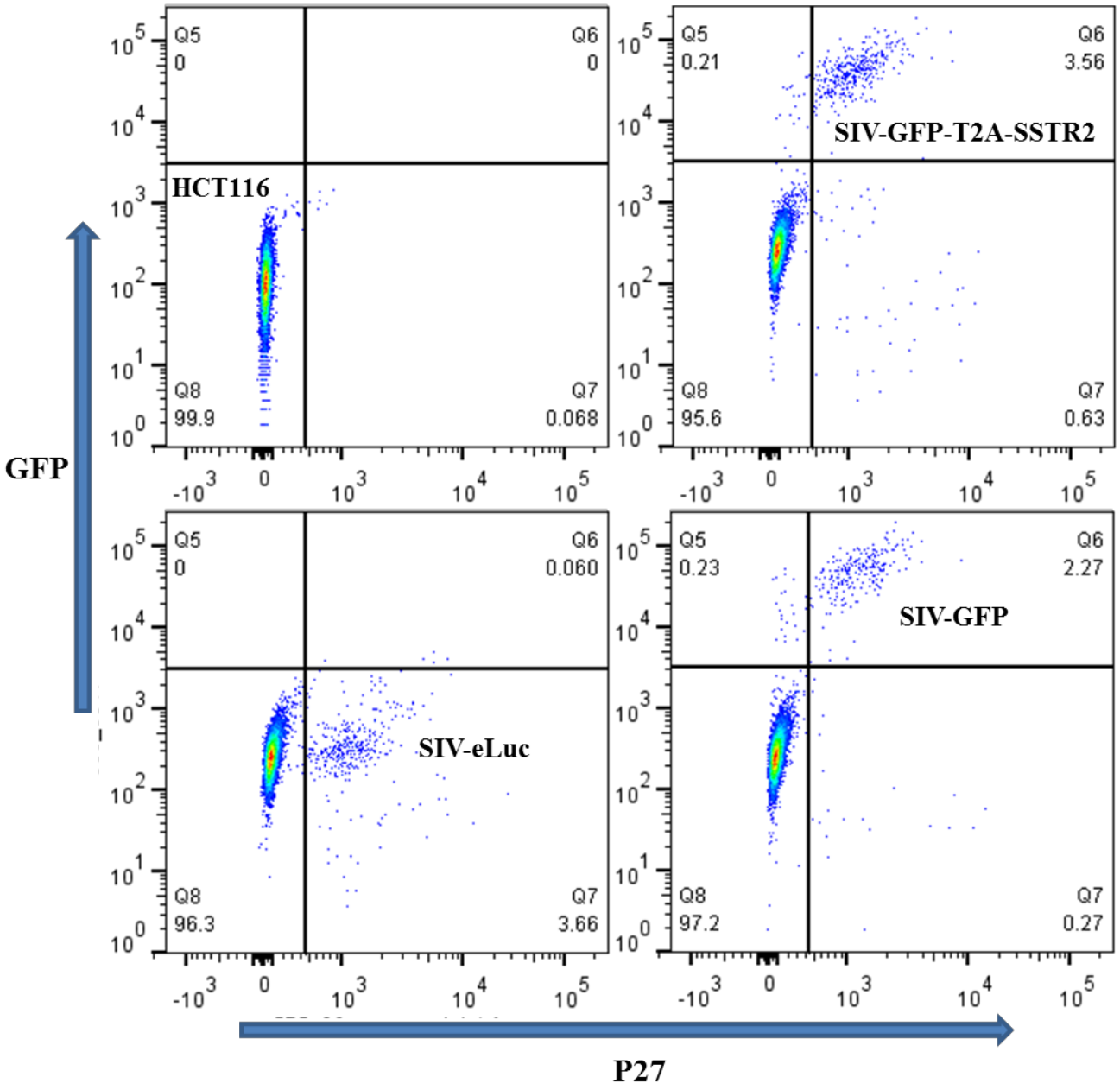

HCT116
Q5
0
Q6
0
Q8
99.9
Q7
0.068
SIV-GFP-T2A-SSTR2
Q5
0.21
Q6
3.56
Q8
95.6
Q7
0.63
SIV-eLuc
Q5
0
Q6
0.060
Q8
96.3
Q7
3.66
SIV-GFP
Q5
0.23
Q6
2.27
Q8
97.2
Q7
0.27
GFP
P27

Figure S1. HCT116 cells transduced with different reporter viruses (SIV_{mac239}-GFP-T2A-SSTR2, SIV_{mac239}-eLuc, and SIV_{mac239}-GFP) were analyzed by FACS for p27 staining and GFP expression. The percentage of positive cells in each quadrant is shown.

Figure S2

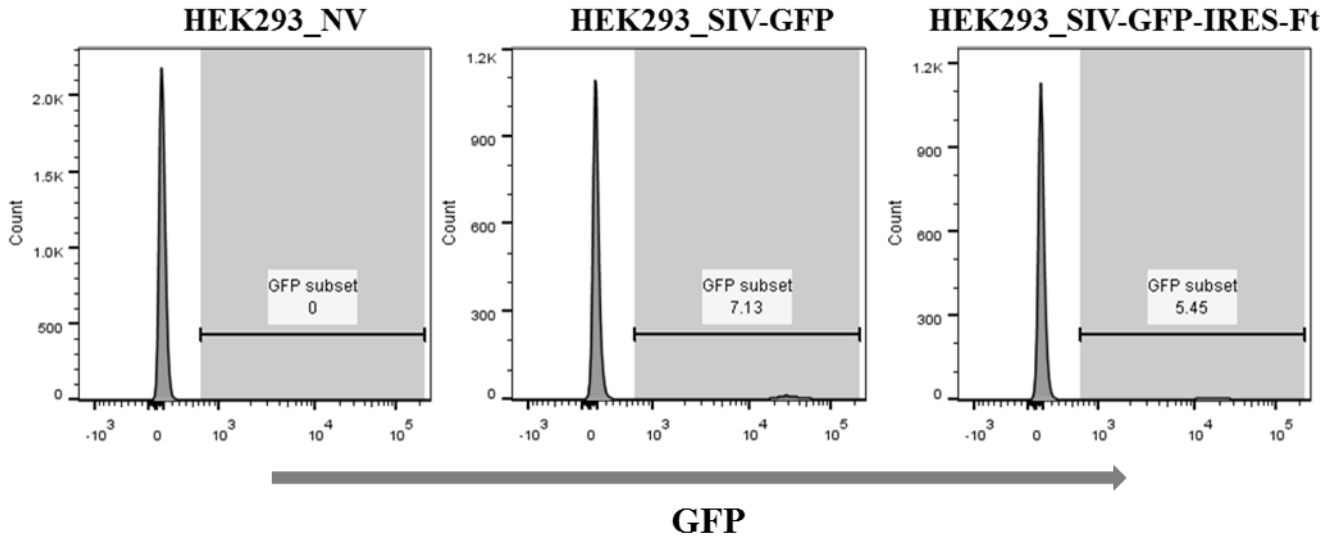

HEK293_NV
HEK293_SIV-GFP
HEK293_SIV-GFP-IRES-Ft
Count
GFP subset
0
GFP subset
7.13
GFP subset
5.45
GFP

Figure S2. FACS analysis of 293FT cells without viral transduction (NV) and infected with SIV_{mac239}-GFP or SIV_{mac239}-GFP-IRES-Ft. Histograms of GFP+ cells are shown for each sample.

Supplemental Fig 3

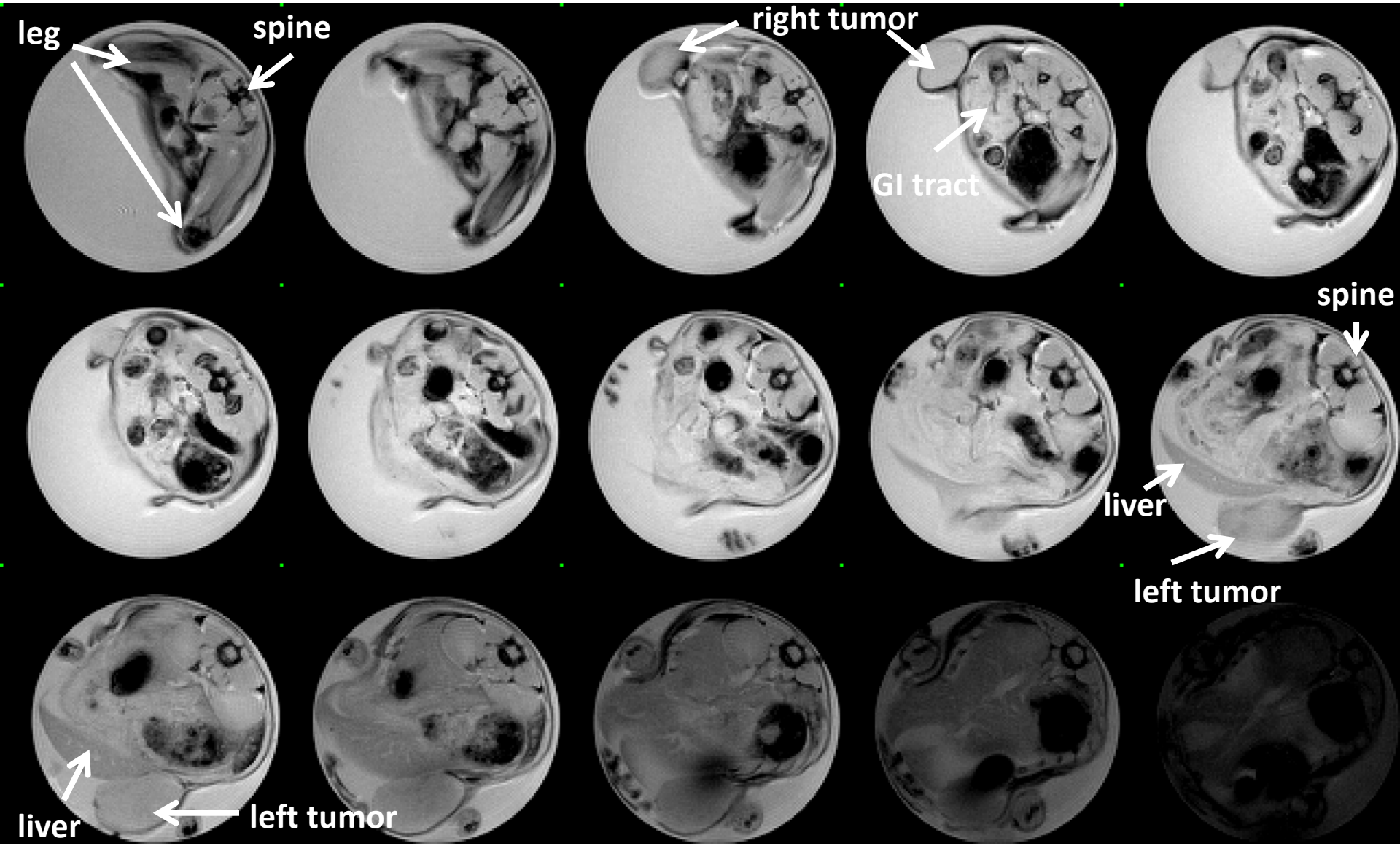


Figure S3. Sequential magnetic resonance images of xenograft in the Mouse#2 transplanted with SIV-infected cells using multi-slice gradient echo sequence with 15 slices (1-mm thickness) for locating the tumors before measuring magnetic susceptibility increased by ferritin expression via SIV infection. Imaging parameters: FOV of 30 mm x 30 mm, matrix size of 128 x128, repetition time (TR) = 250 ms and TE = 3 ms.

Figure S4

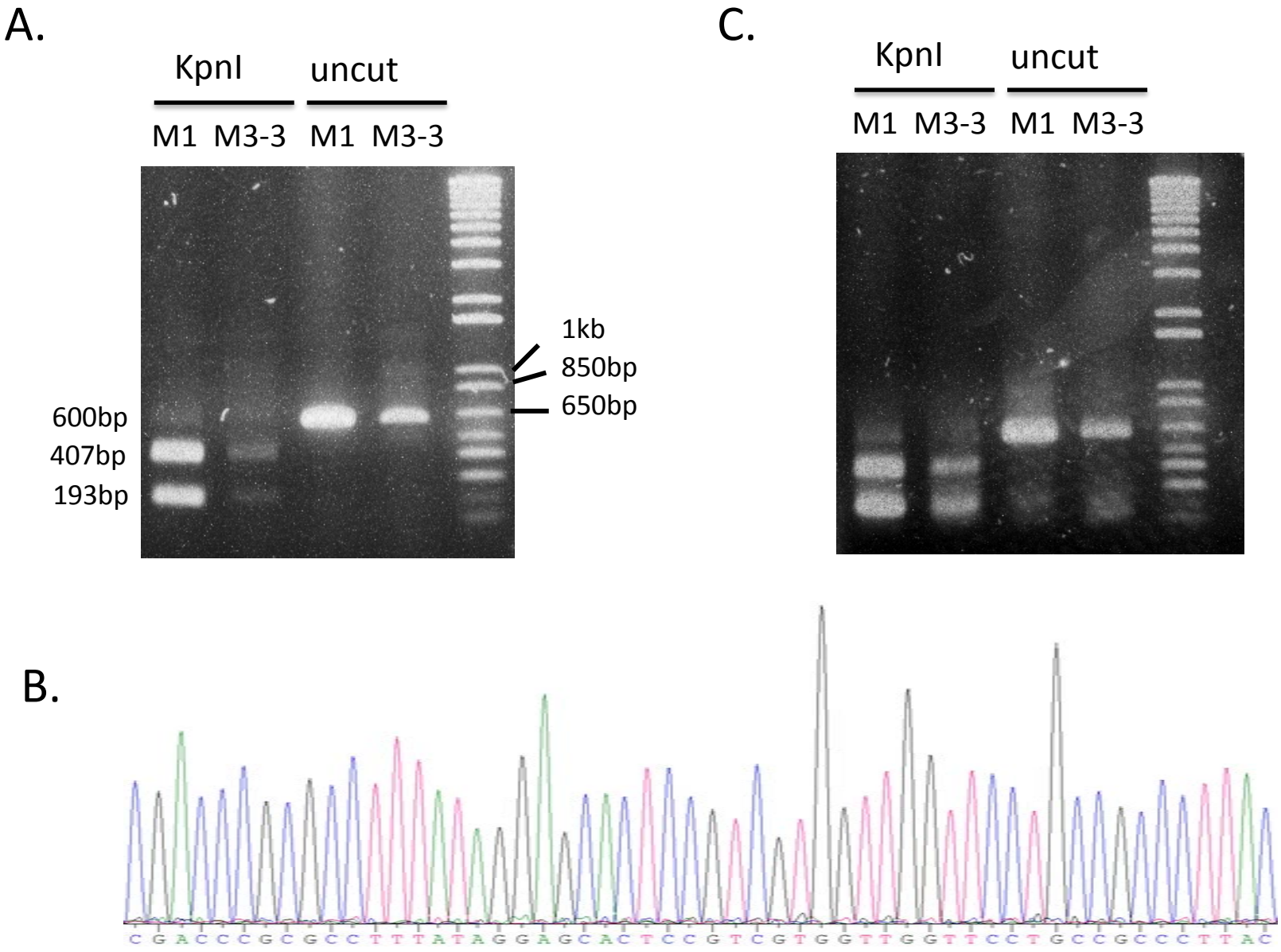
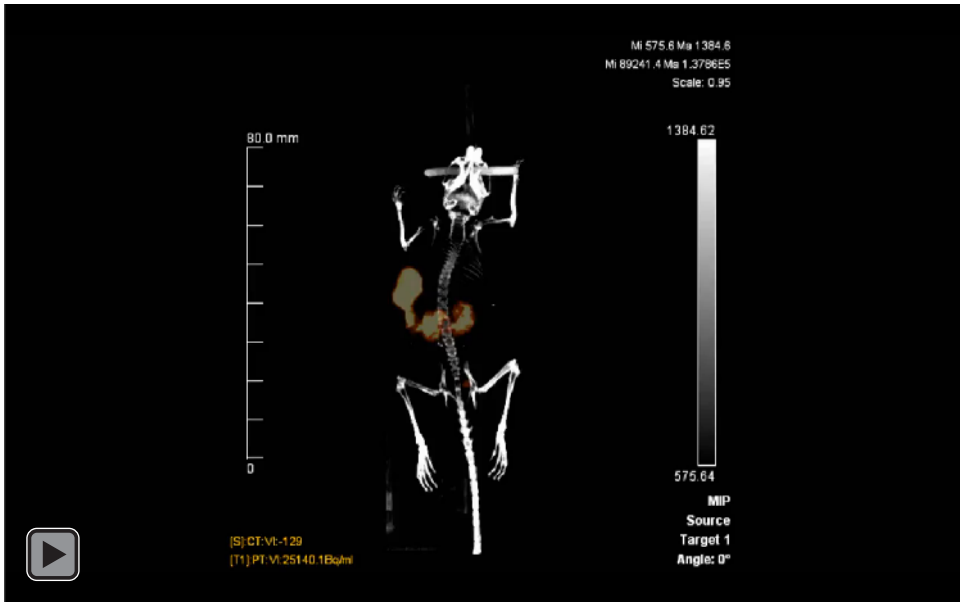

A.
KpnI
uncut
M1 M3-3 M1 M3-3
600bp
407bp
193bp
1kb
850bp
650bp
C.
KpnI
uncut
M1 M3-3 M1 M3-3
B.
C G A C C C G C G C C T T T A T A G G A G C A C T C C G T C G T G G T T G G T T C C T G C C G C C C T T A C

Figure S4. Validation of EcoSIV infection and expression in biopsied tissues. (A) Integrated SIV sequence was amplified from genomic DNA extracted from intestine tissue using primer set annealing to gag region. PCR condition: 94°C 3min, 94°C 1min, 63°C 1min 72°C 1min, 72°C 10min, 35 cycles. KpnI, a 6 base cutter restriction enzyme, digests the PCR product from 600bp to 407 bp and 193bp. The probability for a DNA sequence but not expected SIV sequence to be digested by any 6-base cutter, in this case KpnI, is one out of 4096 ($=4^6$). The PCR product was sequenced and aligned to SIV gag region (B). RT-PCR was performed to amplify portion of gag transcripts using the same primer set after cDNA synthesis. The RT-PCR product was subjected to KpnI digestion to validate the RT-PCR product is bona fide.



Video S1. Video of 3D images from PET-CT scans of HCT116 cells transduced with SIV_{mac239}-GFP-T2A-SSTR2.