

Supplementary Materials for the Manuscript Entitled

**“Monitoring Breast Tumor Lung Metastasis by U-SPECT-II/CT with
an Integrin $\alpha_v\beta_3$ -Targeted Radiotracer ^{99m}Tc -3P-RGD₂”**

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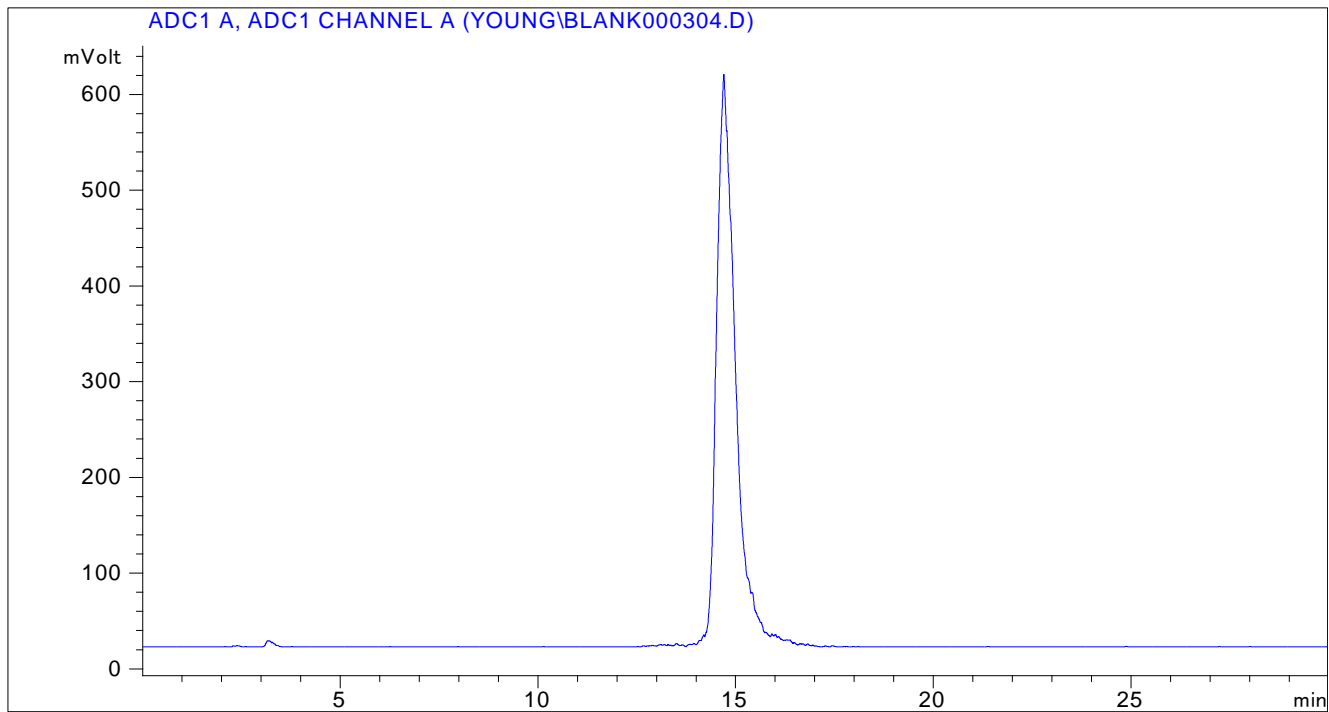


Figure S11. Typical radio-HPLC chromatogram of $^{99\text{m}}\text{Tc}$ -3P-RGD₂ to illustrate its radiochemical purity.

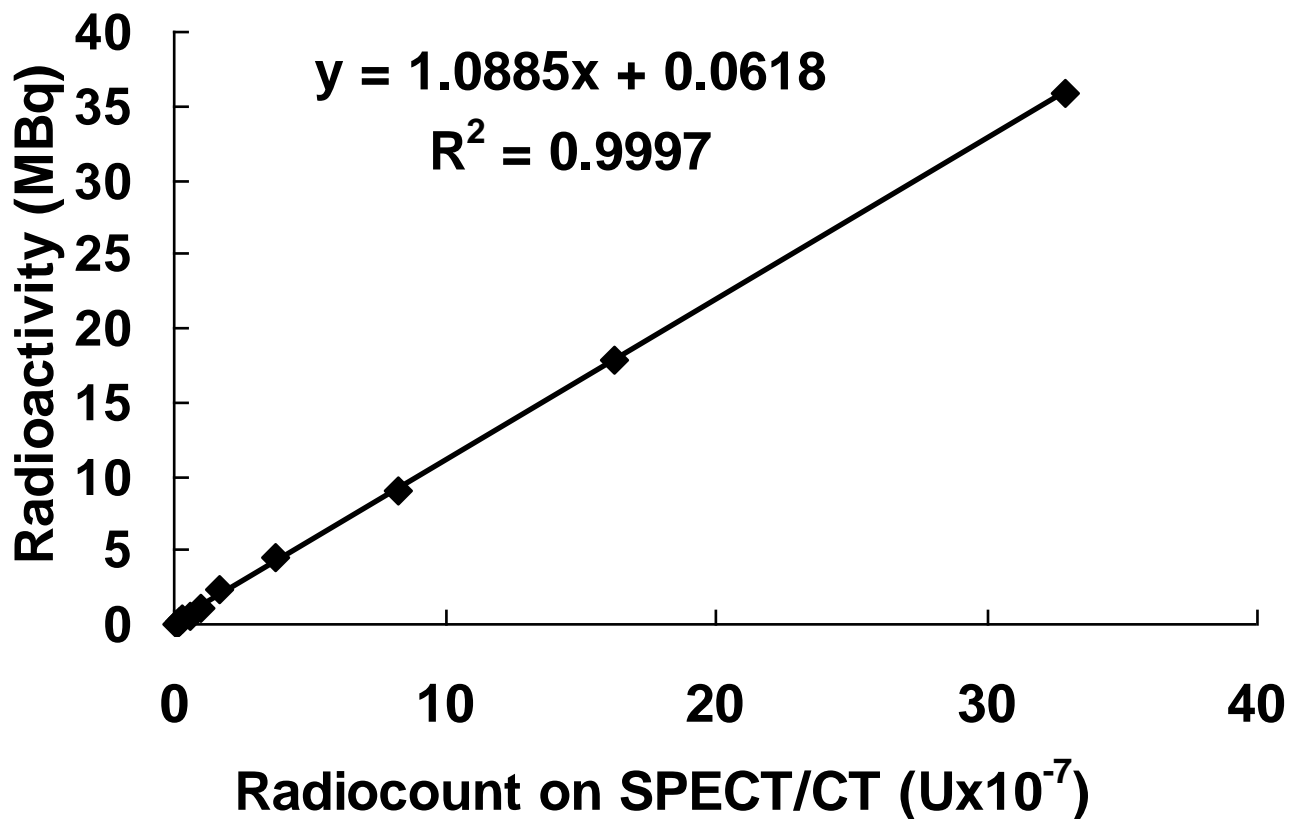


Figure SI2. Relationship between the radioactivity counts from the SPECT/CT fusion images and those from γ -counter. Obviously, there was a linear relationship with R^2 being 0.9997. The conversion formula was $y = 1.0885x + 0.0618$, where y represents the radioactivity (MBq) from γ -counter, and x is the radioactivity ($U \times 10^{-7}$) from the SPECT/CT.

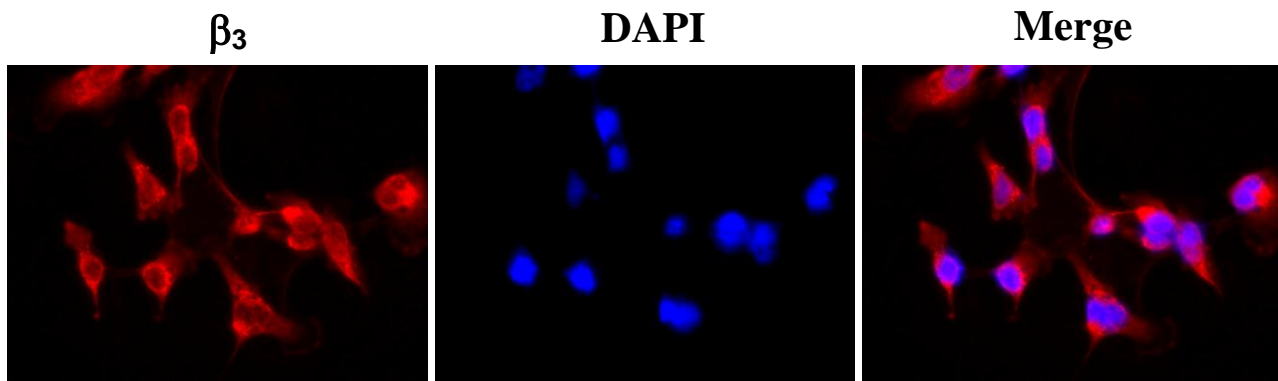


Figure SI3. Integrin β_3 immunostaining of MDA-MB-231 human breast cancer cells. MDA-MB-231 cells were seeded into 8-well chamber slides. Cells were allowed to attach and spread for >24 h. The tumor cells were fixed in $-20\text{ }^\circ\text{C}$ methanol for 5 min and rinsed with PBS. Cells were blocked with 10% goat serum for 30 min at room temperature, and then incubated with hamster anti-integrin β_3 antibody (1:100, BD Biosciences, San Jose, CA) for 1 h at room temperature followed by incubation with Cy3-conjugated goat anti-hamster secondary antibody (1:100, Jackson ImmunoResearch Inc., West Grove, PA). After washing with PBS, the slides were mounted with Dapi-Fluoromount-G (SouthernBiotech, Birmingham, AL). Primary antibody replaced by PBS only was served as the negative control. Fluorescence was visualized with an Olympus BX51 fluorescence microscope (Olympus America Inc., Center Valley, PA).