

Supplementary materials
for
Preclinical Melanoma Imaging With ^{68}Ga -Labeled α -Melanocyte-Stimulating
Hormone Derivatives Using PET

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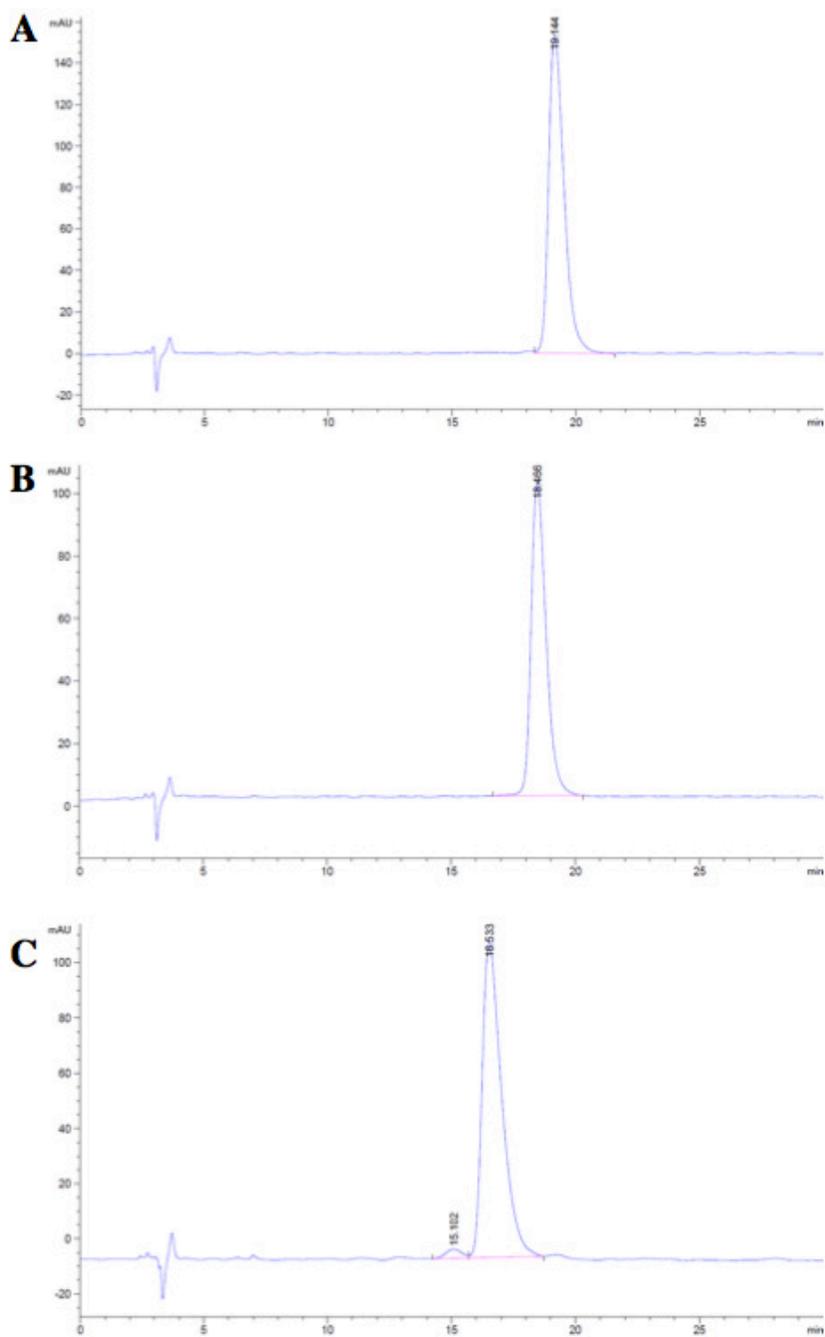


Figure S1. HPLC purity determination for non-radioactive gallium-labeled **A.** CCZ01047 (>99%), **B.** CCZ01048 (>99%), and **C.** CCZ01056 (>97%).

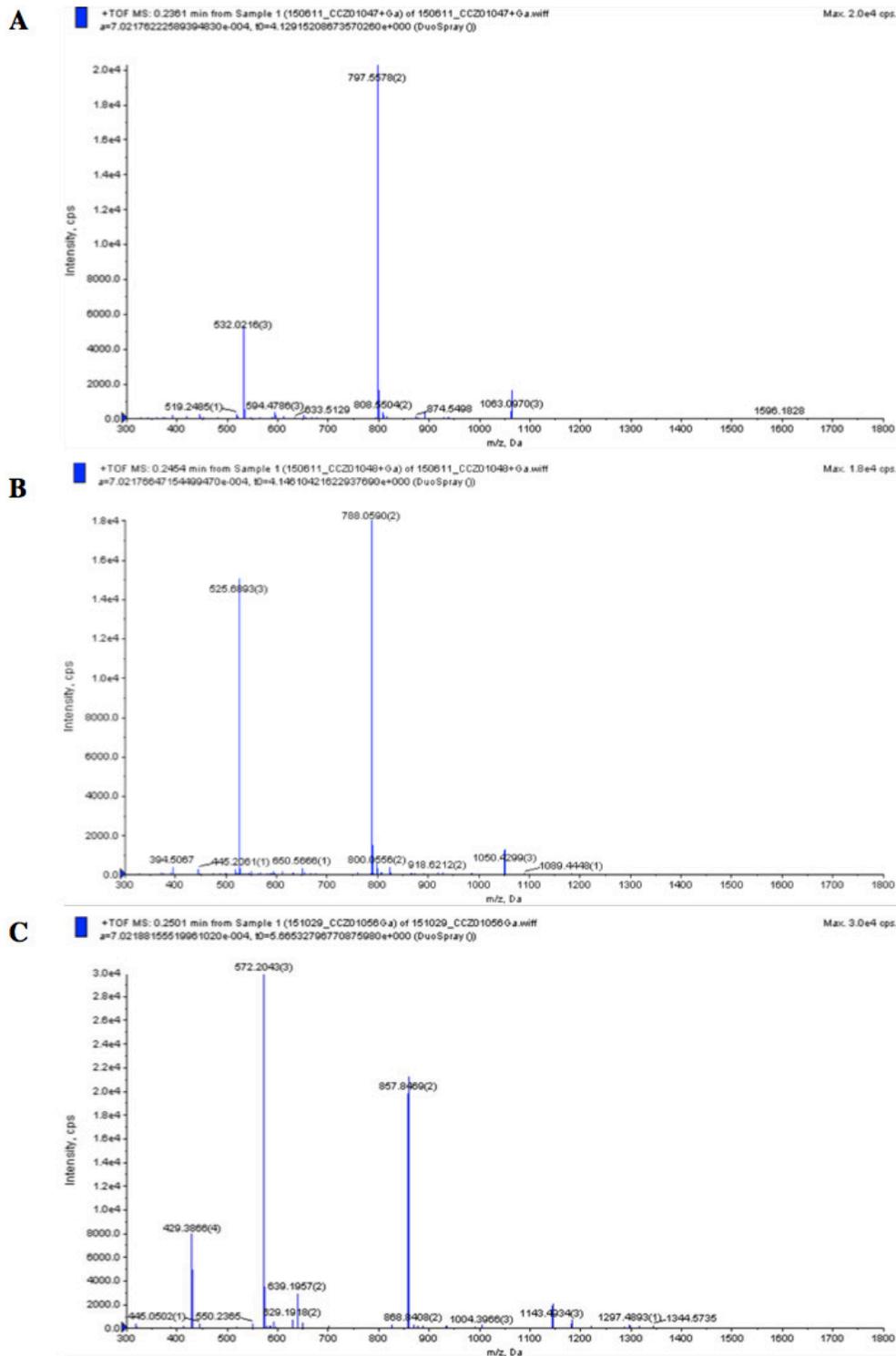


Figure S2. Mass analysis for non-radioactive gallium-labeled **A.** CCZ01047, mass calculated 1593.71, found 1595.12 (M+2H), **B.** CCZ01048, mass calculated 1574.71, found 1576.12 (M+2H), and **C.** CCZ01056, mass calculated 1714.81, found 1715.69 (M+1H).

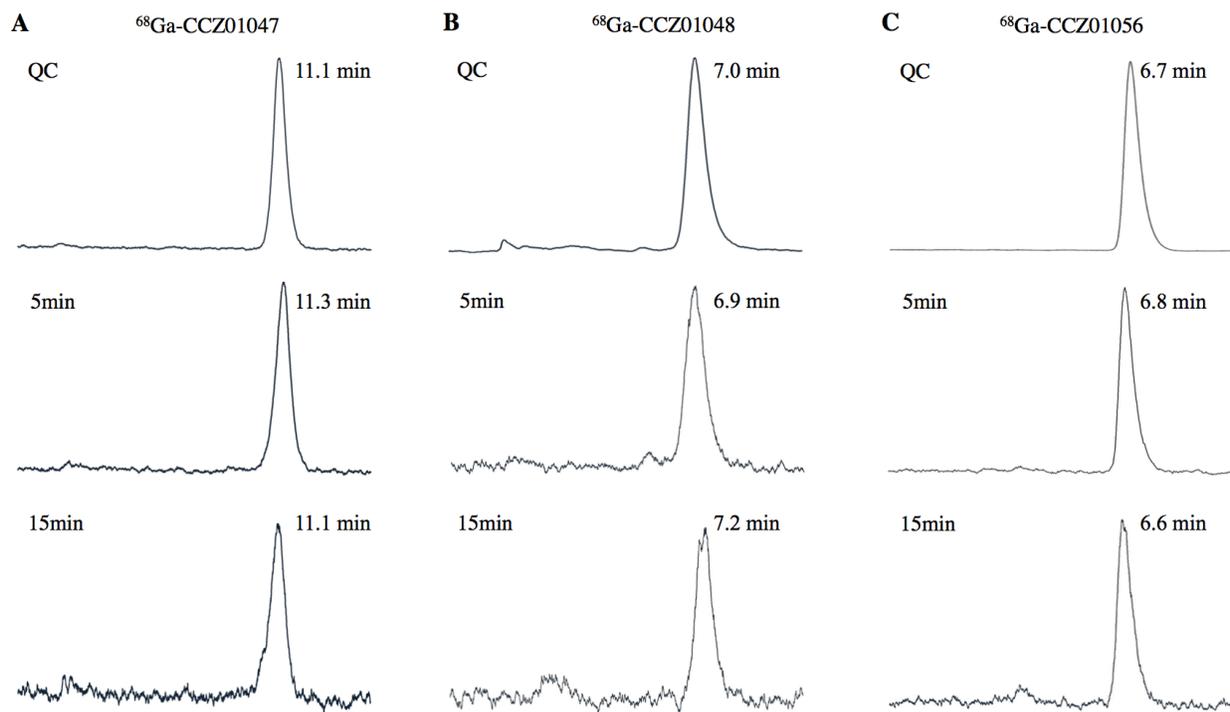


Figure S3. *In vivo* stability in blood plasma for **A.** $^{68}\text{Ga-CCZ01047}$, **B.** $^{68}\text{Ga-CCZ01048}$, and **C.** $^{68}\text{Ga-CCZ01056}$, at 5 and 15 min p.i. QC, quality control of tracer alone. All tracers were prepared with > 95% radiochemical purity.

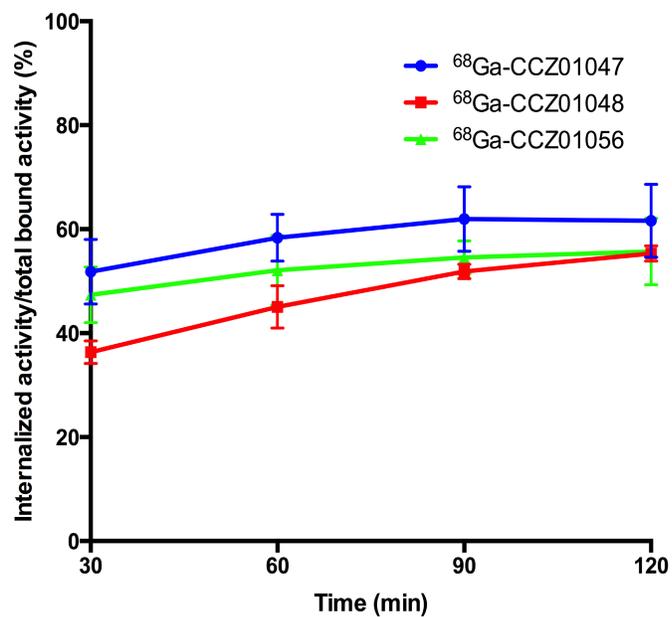


Figure S4. Internalization of $^{68}\text{Ga-CCZ01047}$, $^{68}\text{Ga-CCZ01048}$, and $^{68}\text{Ga-CCZ01056}$ in B16F10 cells. Total bound activity is the sum of internalized and surface-bound activity.

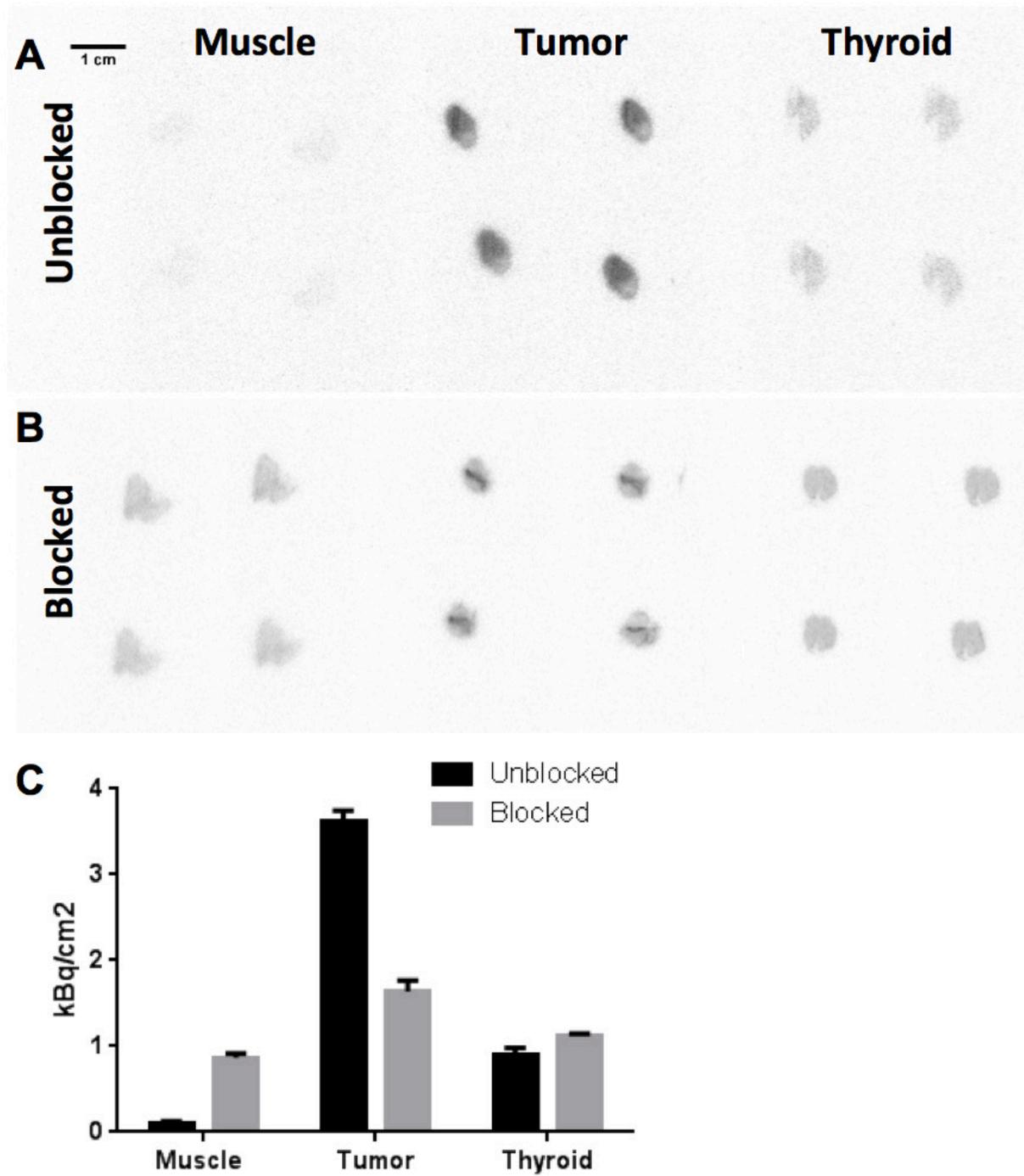


Figure S5. *In vivo* radioactivity distribution of ⁶⁸Ga-CCZ01048 in muscle, tumor and thyroid **A.** without and **B.** with co-injection of 100 µg of non-radioactive Ga-labeled CCZ01048 (blocked) using autoradiography. **C.** Comparison of radioactivity uptake in muscle, tumor and thyroid in unblock and blocked conditions. All conditions were performed in four replicates.