

Supplementary Materials for the Manuscript Entitled

“^{99m}Tc-Labeled Cyclic RGDfK Dimer: Initial Evaluation for SPECT Imaging of Glioma Integrin $\alpha_v\beta_3$ Expression”

By

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Table S1. Biodistribution data of [$^{99m}\text{Tc}(\text{SQ168})(\text{EDDA})$] in BALB/c nude mice bearing the U87 human glioma xenografts. The organ uptake is expressed %ID/g. Each data point represents an average of biodistribution data in four animals.

Organ	0.5 h	1.0 h	2.0 h	4.0 h
Tumor	2.59±0.58	3.14±0.99	2.26±0.22	1.99±0.44
Blood	0.47±0.10	0.24±0.05	0.10±0.04	0.08±0.02
Heart	0.92±0.19	0.81±0.03	0.59±0.04	0.48±0.07
Liver	1.80±0.26	2.35±0.63	2.11±0.39	1.88±0.71
Spleen	1.40±0.34	1.58±0.37	1.55±0.17	1.35±0.28
Kidney	4.52±0.53	3.89±0.49	3.91±0.39	3.08±0.77
Lungs	2.27±0.35	2.20±0.15	1.23±0.13	1.09±0.13
Muscle	0.53±0.09	0.48±0.15	0.37±0.03	0.37±0.12
Gut	4.62±1.07	5.19±1.66	5.04±2.03	3.10±0.54
Stomach	3.34±0.23	3.14±0.37	2.65±0.34	2.36±0.35

Table S2. Biodistribution data of [$^{99m}\text{Tc}(\text{SQ168})(\text{tricine})(\text{TPPTS})$] in BALB/c nude mice bearing the U87 human glioma xenografts. The organ uptake is expressed %ID/g. Each data point represents an average of biodistribution data in four animals.

Organ	0.5 h	1.0 h	2.0 h	4.0 h
Tumor	2.46±0.66	2.43±0.45	2.14±0.53	3.10±0.35
Blood	0.51±0.10	0.25±0.07	0.22±0.09	0.10±0.04
Heart	1.69±0.23	1.38±0.07	1.16±0.22	0.79±0.07
Liver	1.71±0.19	1.48±0.08	1.58±0.37	1.42±0.11
Spleen	1.94±0.30	1.54±0.30	1.23±0.34	1.29±0.19
Kidneys	7.94±0.96	6.52±0.29	5.22±0.88	4.62±0.28
Lungs	3.46±0.12	3.13±0.71	2.12±0.55	1.39±0.12
Muscle	0.75±0.13	0.87±0.23	0.64±0.15	0.48±0.03
Gut	10.41±2.01	6.08±3.25	2.11±0.58	1.66±0.39
Stomach	5.26±0.21	4.90±0.90	3.58±1.08	2.52±0.23

Table S3. Biodistribution data of [$^{99m}\text{Tc}(\text{SQ168})(\text{tricine})(\text{PDA})$] in BALB/c nude mice bearing the U87 human glioma xenografts. The organ uptake is expressed %ID/g. Each data point represents an average of biodistribution data in four animals.

Organ	0.5 h	1.0 h	2.0 h	4.0 h	1.0 h/Block
Tumor	2.70±0.77	2.33±0.10	2.52±1.13	3.01±0.47	0.82±0.16
Blood	0.67±0.03	0.35±0.07	0.13±0.03	0.13±0.08	0.35±0.28
Heart	1.57±0.23	1.17±0.14	1.05±0.04	0.94±0.18	0.20±0.10
Liver	2.56±0.65	2.22±0.32	2.25±0.33	2.29±0.37	0.34±0.15
Spleen	2.04±0.52	1.49±0.19	1.36±0.17	1.52±0.21	0.25±0.07
Kidneys	7.64±0.74	5.66±1.11	5.09±0.30	4.40±0.74	3.76±1.36
Lungs	3.78±0.63	2.61±0.51	1.90±0.23	1.48±0.17	0.59±0.17
Muscle	1.09±0.13	0.54±0.21	0.62±0.08	0.45±0.05	0.53±0.13
Gut	5.84±1.27	3.82±0.85	2.99±1.61	5.07±1.24	1.18±0.30
Stomach	5.27±0.64	4.01±0.48	3.06±0.16	2.94±0.40	0.53±0.13

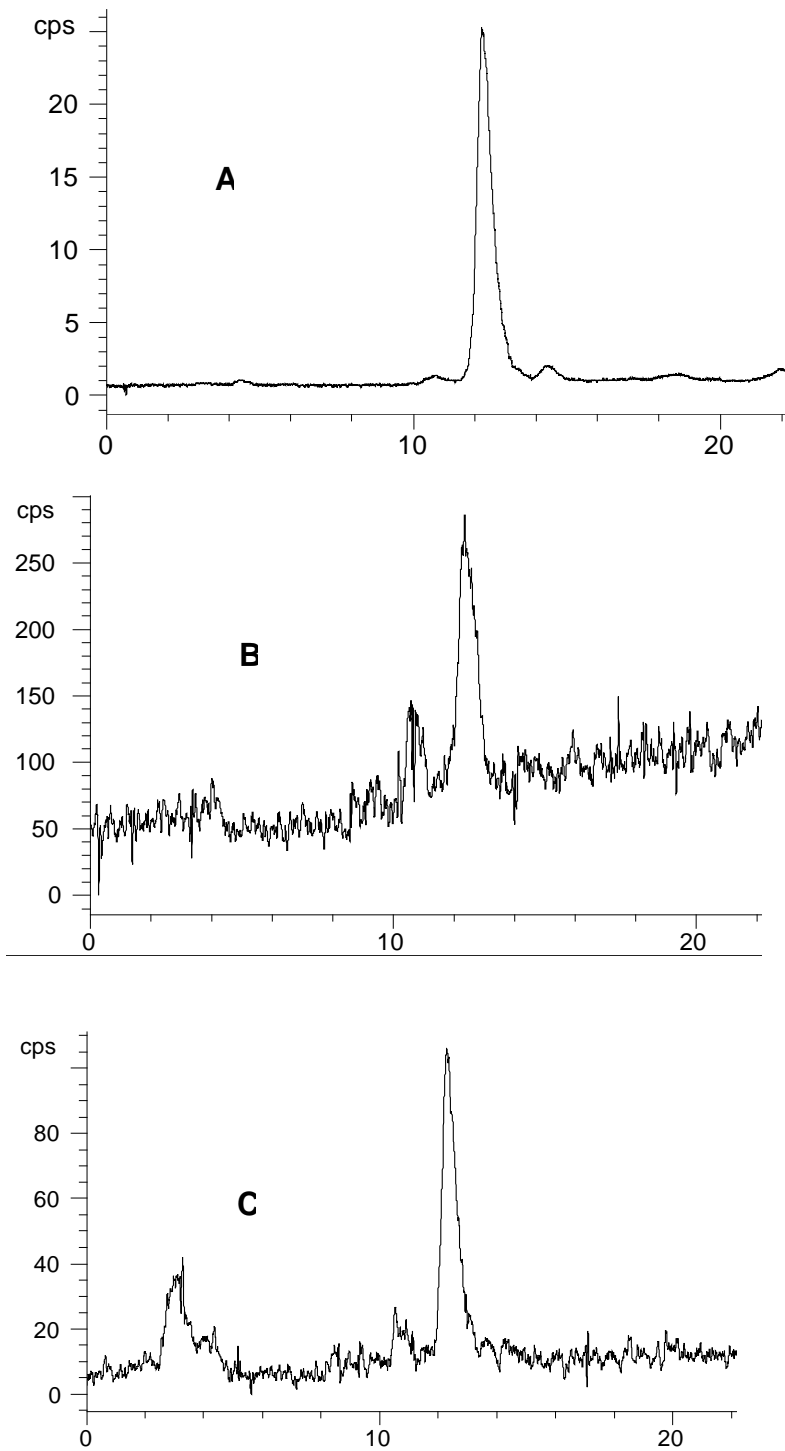


Figure SI. Radio-HPLC chromatograms of [$^{99m}\text{Tc}(\text{SQ168})(\text{EDDA})$] in the kit matrix before injection (A), in the liver (B), and in the urine (C) at 2 h postinjection.