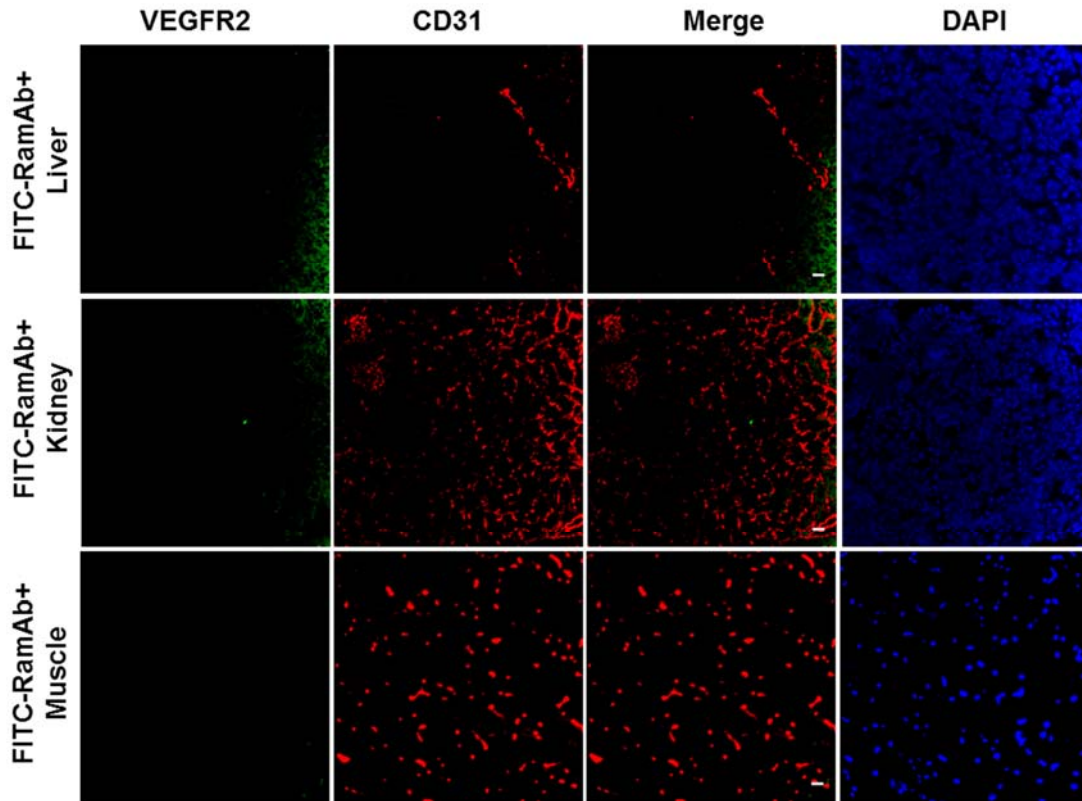


SUPPLEMENTAL FIGURE 1. Coronal slices of PET images at 3, 24 and 48 h post-injection of $^{64}\text{Cu-NOTA-RamAb}$ or RamAb blocking before $^{64}\text{Cu-NOTA-RamAb}$ are shown, and tumors are indicated by arrows.



SUPPLEMENTAL FIGURE 2. Immunofluorescence of VEGFR-2 staining in tissue sections. FITC-RamAb was used for VEGFR-2 staining (green). The tissue slices were stained with rat anti-mouse CD31 antibody and Cy3-labeled donkey anti-rat IgG (red). DAPI staining was used to reveal the location of cell nuclei. Scale bar: 20 μ m.

SUPPLEMENTAL Table 1 Quantitative PET data of tracer uptakes in tumor-bearing nude mice.

Imaging group	Tissue	Hours post injection of the tracer		
		3 h	24 h	48 h
⁶⁴ Cu-NOTA-RamAb (Positive, n=4)	HCC4006	3.8 ± 0.5	8.2 ± 0.5	9.4 ± 0.5
	Blood	13.0 ± 1.4	10.9 ± 0.6	9.8 ± 0.6
	Liver	10.4 ± 2.2	8.2 ± 0.9	7.6 ± 0.8
	Kidney	5.1 ± 0.6	5.0 ± 0.3	4.7 ± 0.3
	Muscle	1.2 ± 0.1	1.5 ± 0.1	1.4 ± 0.1
⁶⁴ Cu-NOTA-RamAb (Negative, n=3)	A549	2.6 ± 0.3	4.2 ± 0.3	4.3 ± 0.2
	Blood	11.9 ± 0.3	8.0 ± 1.2	7.3 ± 1.7
	Liver	7.0 ± 0.4	5.4 ± 0.7	4.9 ± 1.0
	Kidney	4.8 ± 0.1	4.1 ± 0.2	3.2 ± 0.6
	Muscle	0.9 ± 0.2	1.1 ± 0.3	0.9 ± 0.3
⁶⁴ Cu-NOTA-RamAb (Blocking, n=3)	HCC4006	2.8 ± 1.2	4.2 ± 1.3	4.4 ± 1.3
	Blood	12.2 ± 0.6	9.1 ± 0.2	7.8 ± 0.1
	Liver	8.4 ± 0.6	6.6 ± 0.3	6.2 ± 0.6
	Kidney	4.0 ± 0.6	3.9 ± 0.1	3.6 ± 0.2
	Muscle	0.8 ± 0.1	1.0 ± 0.2	0.9 ± 0.2

*Values are reported as %ID/g (mean ± SD)

SUPPLEMENTAL Table 2 *Ex vivo* biodistribution of ^{64}Cu -NOTA-RamAb, 48 h after its i.v administration into HCC4006 or A549 tumor-bearing nude mice.

Tissue	Positive (HCC4006) (n=4)	Negative (A549) (n=3)	Blocking (HCC4006) (n=3)
Tumor	9.47 ± 2.22	2.24 ± 0.67	2.42 ± 0.78
Blood	11.90 ± 1.92	8.91 ± 2.08	9.99 ± 0.85
Skin	3.96 ± 1.19	2.22 ± 0.73	3.18 ± 0.15
Muscle	0.73 ± 0.31	0.48 ± 0.23	0.42 ± 0.23
Bone	1.35 ± 0.16	0.77 ± 0.26	0.99 ± 0.56
Heart	3.47 ± 1.17	2.12 ± 0.34	2.97 ± 0.34
Lung	2.84 ± 1.58	2.21 ± 0.84	2.46 ± 1.02
Liver	8.16 ± 3.97	3.76 ± 0.95	5.43 ± 0.44
Kidney	5.72 ± 3.69	3.13 ± 0.16	3.31 ± 1.44
Spleen	2.27 ± 0.64	1.92 ± 0.54	1.69 ± 0.60
Pancreas	0.59 ± 0.21	0.92 ± 0.40	0.82 ± 0.16
Stomach	1.05 ± 0.45	0.82 ± 0.11	1.03 ± 0.39
Intestine	1.13 ± 0.50	0.65 ± 0.13	0.90 ± 0.56
Brain	0.54 ± 0.14	0.29 ± 0.23	0.34 ± 0.19

*Values are reported as %ID/g (mean ± SD)