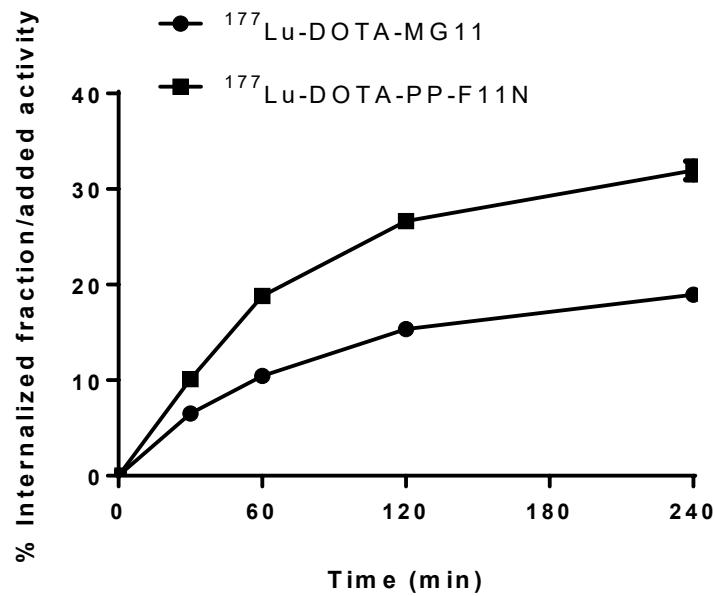


Supplemental Table 1. Non-specific uptake of ^{177}Lu -DOTA-PP-F11N in A431-CCK2R(-) xenografts. The biodistribution results (%IA/g \pm SD, n=3) refer to 4h p.i. of 100 $\mu\text{L}/10\text{ pmol}/0.2\text{ MBq}$ of the radiotracer.

^{177}Lu -DOTA-PP-F11N	
Organs	
Blood	0.01 \pm 0.002
Heart	0.02 \pm 0.01
Lung	0.04 \pm 0.01
Liver	0.28 \pm 0.11
Pancreas	0.05 \pm 0.01
Spleen	0.07 \pm 0.02
Stomach	1.76 \pm 0.57
Intestine	0.08 \pm 0.02
Kidney	3.28 \pm 1.27
Muscle	0.03 \pm 0.01
Bone	0.03 \pm 0.02
A431-CCK2R(-)	0.14 \pm 0.09

Supplemental Table 2. Biodistribution results (%IA/g \pm SD, n=5-6) of ^{177}Lu -DOTA-MG11 and ^{177}Lu -DOTA-PP-F11 at 4h p.i. in a dual tumor model bearing MZ-CRC-1 and A431-CCK2R(+) xenografts, injected with 10 pmol of each radiotracer.

^{177}Lu -DOTA-MG11			
Organs	alone	PA	TH
Blood	0.01 \pm 0.00	0.01 \pm 0.00	0.03 \pm 0.01
Heart	0.02 \pm 0.01	0.02 \pm 0.01	0.04 \pm 0.01
Lung	0.03 \pm 0.01	0.04 \pm 0.02	0.08 \pm 0.02
Liver	0.09 \pm 0.01	0.10 \pm 0.02	0.11 \pm 0.04
Pancreas	0.03 \pm 0.02	0.13 \pm 0.03	0.12 \pm 0.03
Spleen	0.04 \pm 0.01	0.04 \pm 0.01	0.05 \pm 0.02
Stomach	1.06 \pm 0.23	4.04 \pm 0.74	3.05 \pm 0.83
Intestine	0.09 \pm 0.08	0.09 \pm 0.03	0.16 \pm 0.04
Kidney	1.08 \pm 0.15	1.36 \pm 0.24	1.33 \pm 0.41
Muscle	0.03 \pm 0.02	0.03 \pm 0.02	0.03 \pm 0.02
Bone	0.09 \pm 0.04	0.07 \pm 0.05	0.29 \pm 0.17
A431-CCK2R(+)	1.45 \pm 0.30	7.34 \pm 1.64	5.38 \pm 1.36
MZ-CRC-1	3.17 \pm 1.47	17.2 \pm 4.81	12.4 \pm 4.20
^{177}Lu -DOTA-PP-F11			
Organs	alone	PA	TH
Blood	0.02 \pm 0.00	0.02 \pm 0.00	0.03 \pm 0.01
Heart	0.02 \pm 0.01	0.03 \pm 0.01	0.03 \pm 0.01
Lung	0.04 \pm 0.01	0.07 \pm 0.02	0.06 \pm 0.01
Liver	0.09 \pm 0.01	0.09 \pm 0.01	0.11 \pm 0.02
Pancreas	0.05 \pm 0.01	0.07 \pm 0.04	0.06 \pm 0.02
Spleen	0.04 \pm 0.01	0.04 \pm 0.01	0.04 \pm 0.01
Stomach	2.18 \pm 0.95	1.72 \pm 0.22	2.20 \pm 0.39
Intestine	0.16 \pm 0.08	0.10 \pm 0.02	0.31 \pm 0.27
Kidney	4.30 \pm 0.56	5.50 \pm 0.77	6.56 \pm 0.86
Muscle	0.03 \pm 0.01	0.05 \pm 0.02	0.06 \pm 0.02
Bone	0.29 \pm 0.11	0.23 \pm 0.10	0.20 \pm 0.11
A431-CCK2R(+)	6.70 \pm 0.56	9.34 \pm 1.11	8.68 \pm 1.18
MZ-CRC-1	11.2 \pm 2.94	19.7 \pm 4.68	8.09 \pm 2.17



Supplemental Figure 1. Internalization rate of ^{177}Lu -DOTA-PP-F11N compared with ^{177}Lu -DOTA-MG11 in MZ-CRC-1 cells over time. The results are corrected for unspecific uptake. Receptor specificity was verified using 1,000-fold excess of DOTA-MG11 (cellular uptake <0.5%).