

## Supplementary material

# Investigation of the effect on the albumin binding moiety for the pharmacokinetic properties of $^{68}\text{Ga}$ -, $^{205/206}\text{Bi}$ -, and $^{177}\text{Lu}$ -labeled NAPamide-based radiopharmaceuticals

Dániel Szücs<sup>1,2,3</sup>, Judit P. Szabó<sup>1,4</sup>, Viktória Arató<sup>1,5</sup>, Barbara Gyuricza<sup>1</sup>, Dezső Szikra<sup>1</sup>, Imre Tóth<sup>2</sup>, Zita Képes<sup>1</sup>, György Trencsényi<sup>1</sup> and Anikó Fekete<sup>1,\*</sup>

1 Division of Nuclear Medicine and Translational Imaging, Department of Medical Imaging, Faculty of Medicine, University of Debrecen, Nagyerdei krt. 98., H-4032 Debrecen, Hungary;

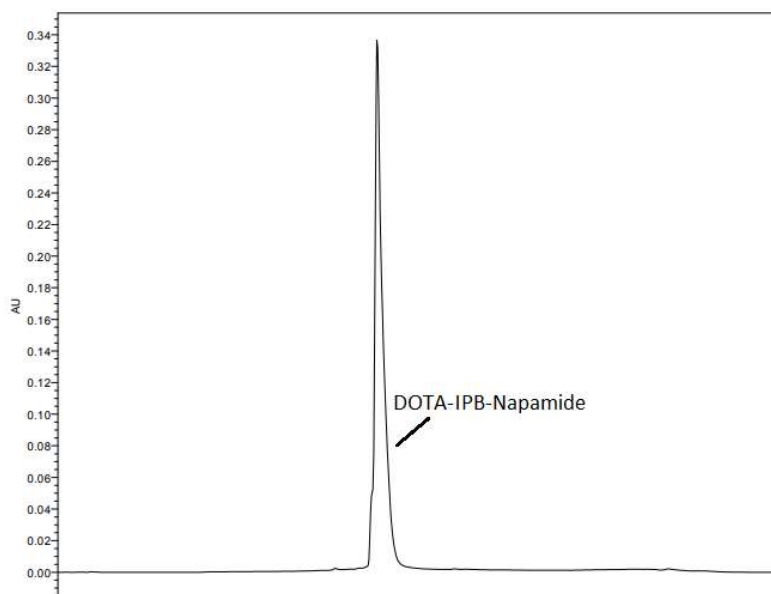
2 Department of Physical Chemistry, Faculty of Science and Technology, University of Debrecen, Egyetem tér 1, H-4032 Debrecen, Hungary;

3 Doctoral School of Chemistry, Faculty of Science and Technology, University of Debrecen, Egyetem tér 1., H-4032 Debrecen, Hungary

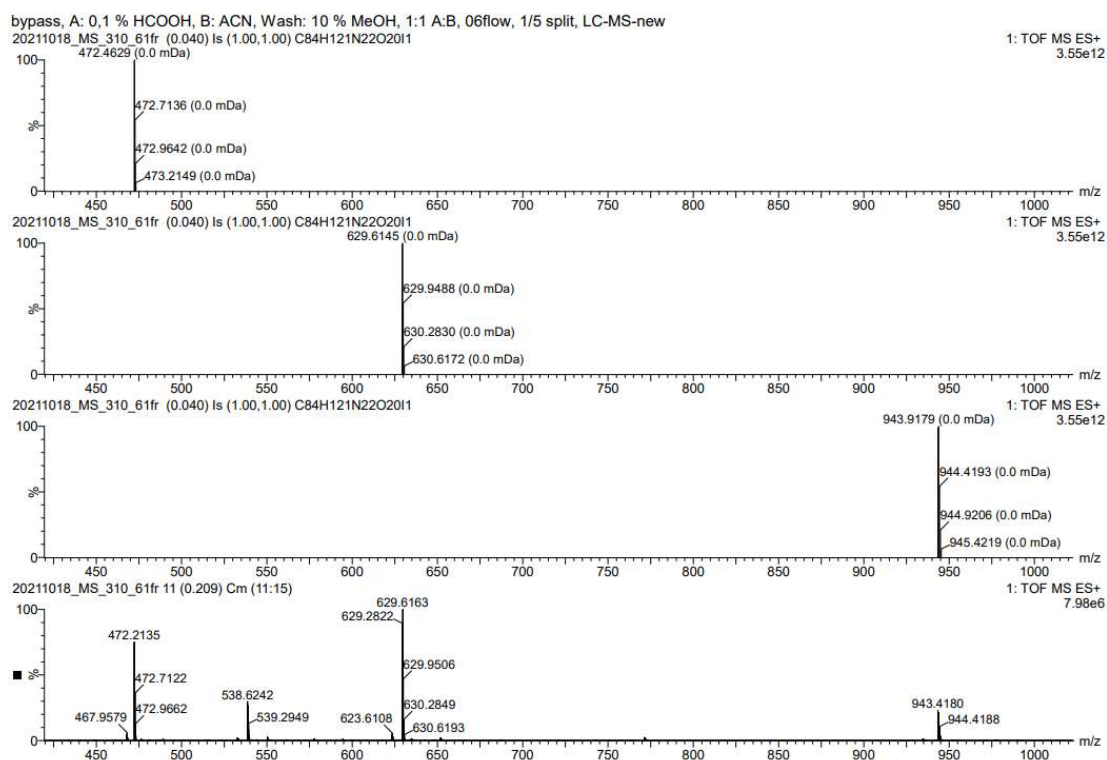
4 Doctoral School of Clinical Medicine, Faculty of Medicine, University of Debrecen, Nagyerdei krt. 98., H-4032 Debrecen, Hungary

5 Doctoral School of Pharmaceutical Sciences, Faculty of Pharmacy, University of Debrecen, Nagyerdei krt. 98., H-4032 Debrecen, Hungary

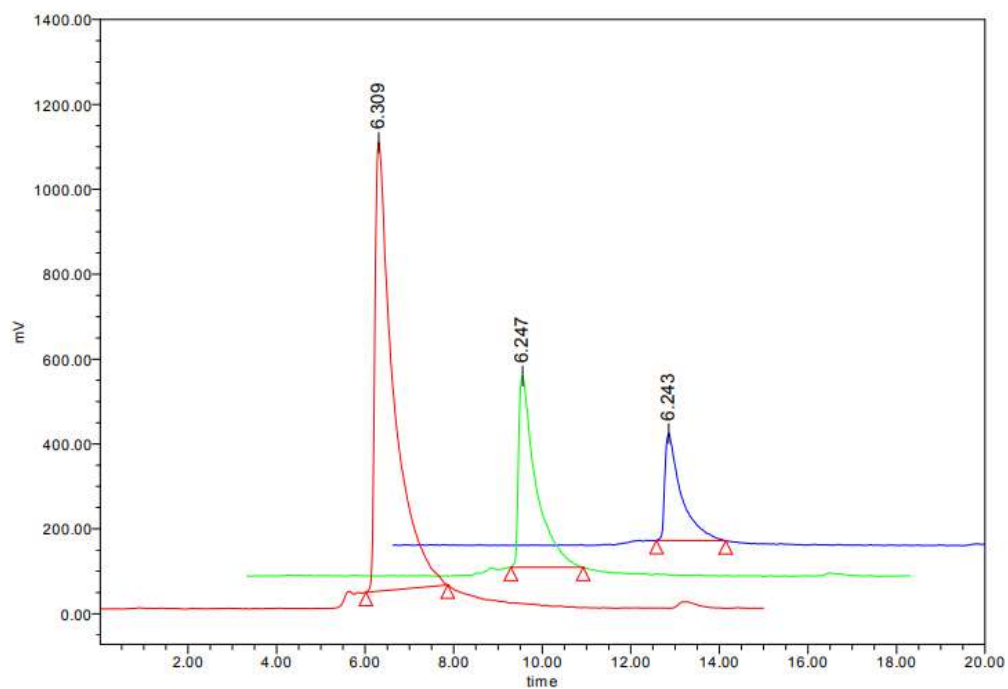
\* Correspondence: fekete.aniko@science.unideb.hu; Tel.: +36-52-255-510 (ext. 54470)



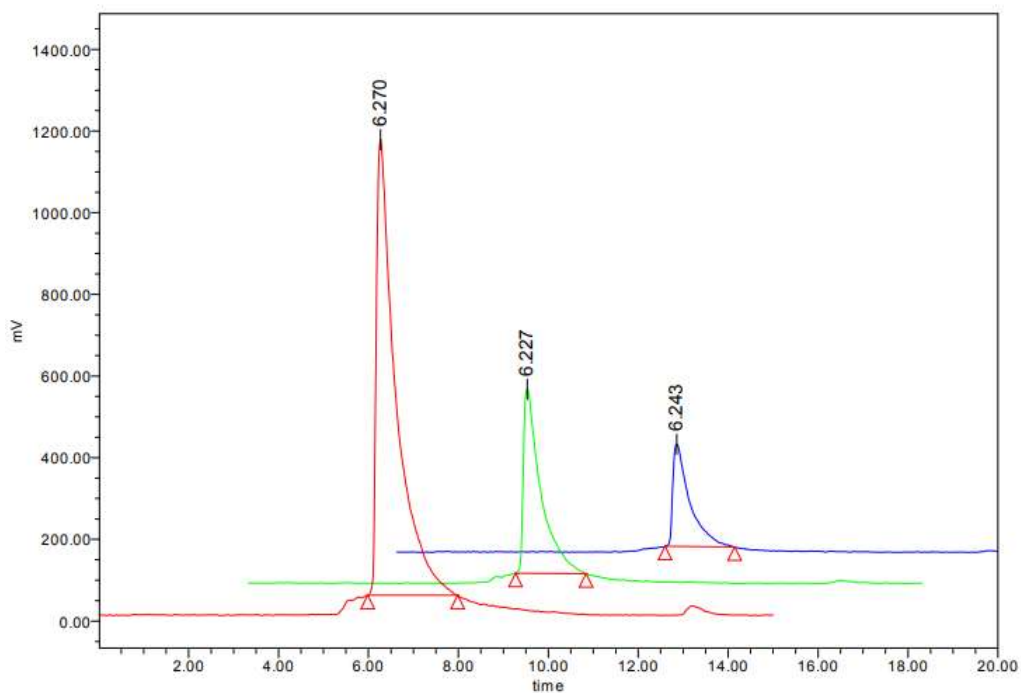
**Figure S1** Analytical RP-HPLC chromatograms of compound 10.



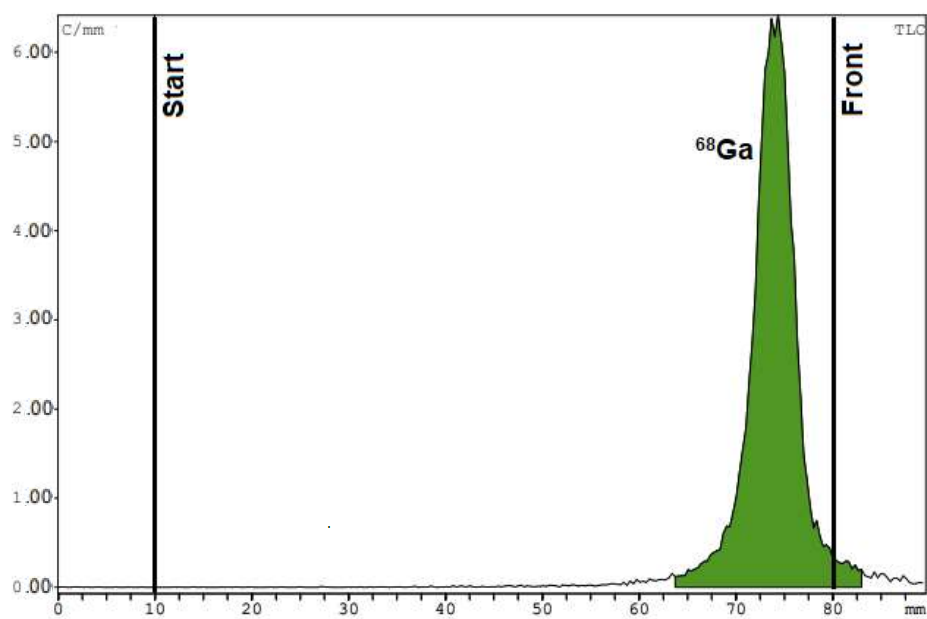
**Figure S2** Mass spectrum of compound 10.



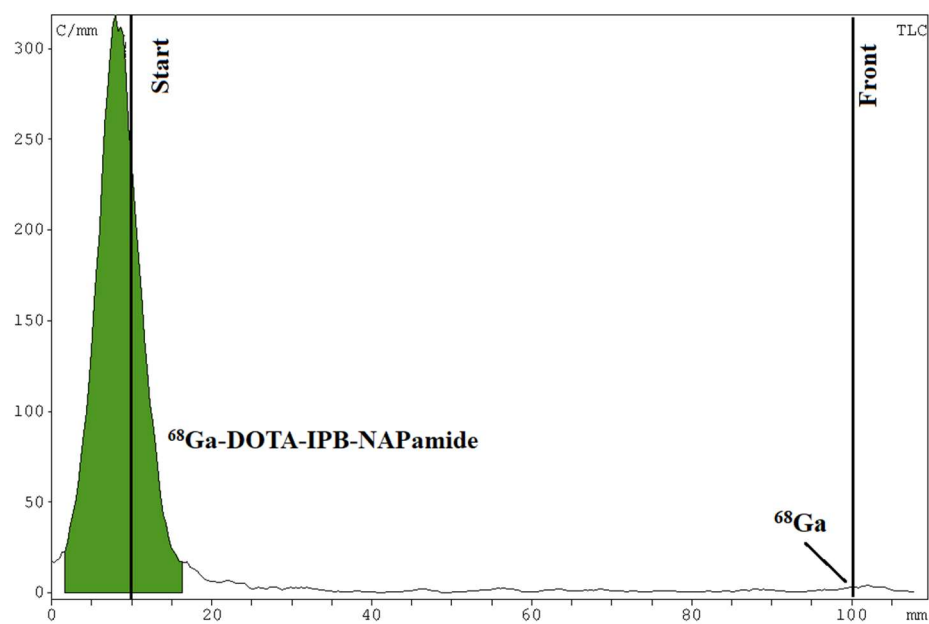
**Figure S3** Stability test of  $[^{68}\text{Ga}]\text{Ga-DOTA-IPB-NAPamide}$  in 0.01 M  $\text{Na}_2\text{EDTA}$  solution.



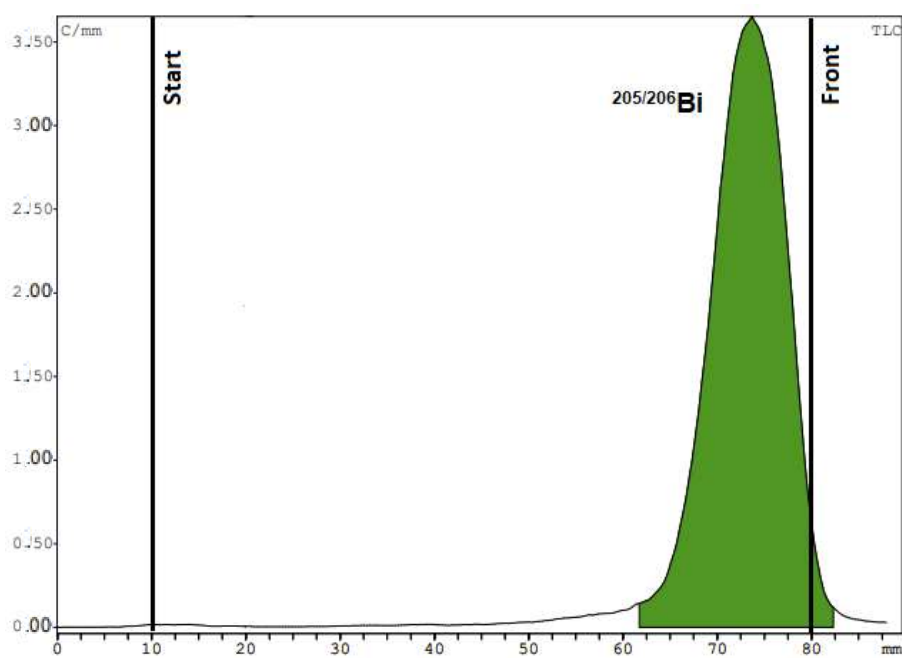
**Figure S4** Metal challenge of  $[^{68}\text{Ga}]\text{Ga-DOTA-IPB-NAPamide}$ .



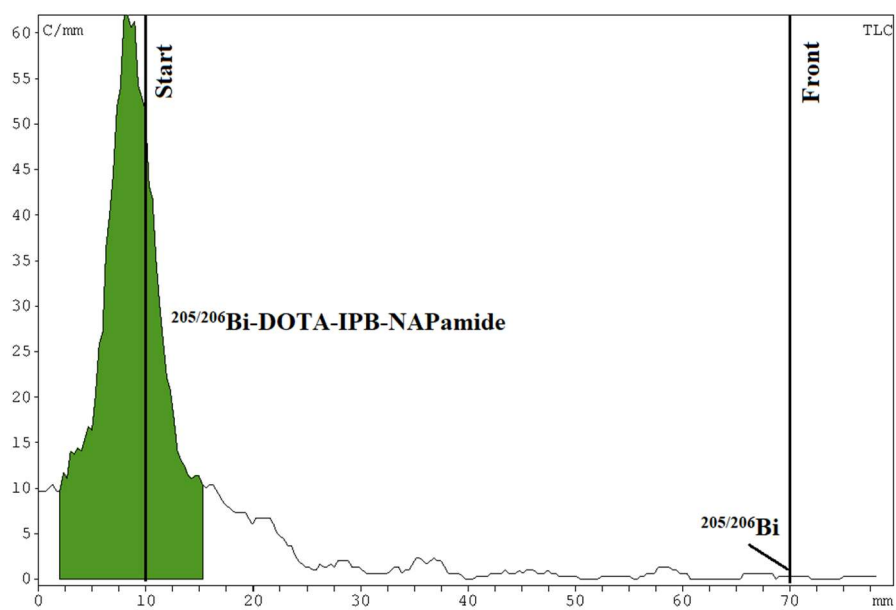
**Figure S5** Radio-iTLC chromatogram of  $^{68}\text{Ga}$  solution.



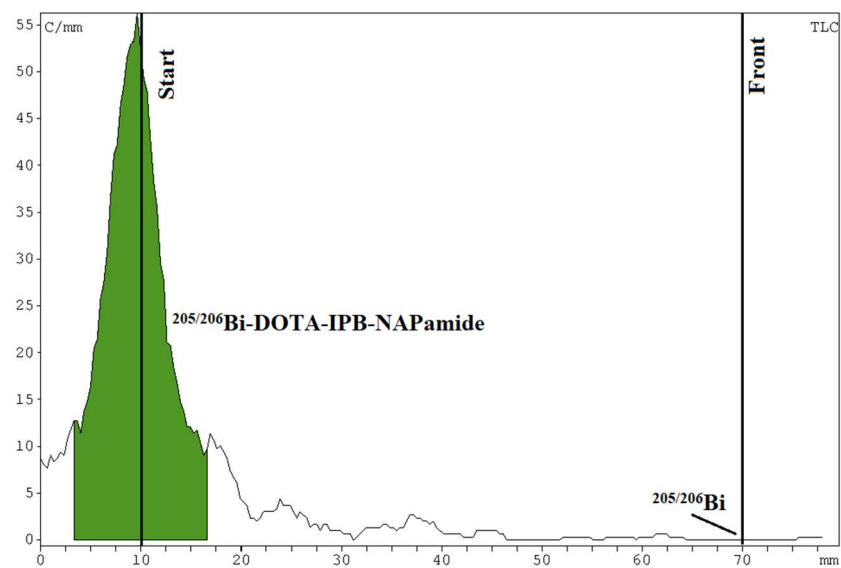
**Figure S6** Stability test of  $^{68}\text{Ga}$ -DOTA-IPB-NAPamide in rat serum after 2 hours.



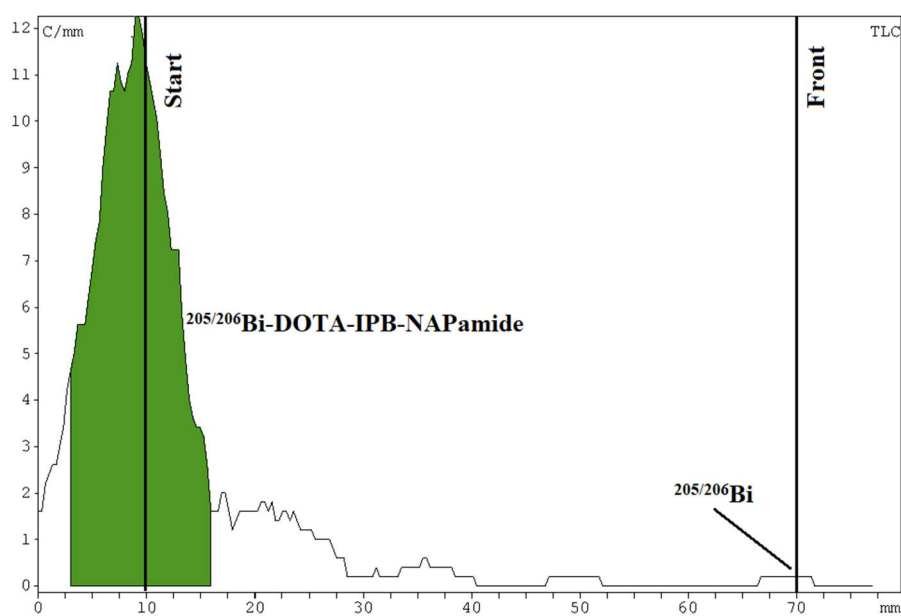
**Figure S7** Radio-TLC chromatogram of  $[^{205/206}\text{Bi}]\text{BiCl}_3$  solution.



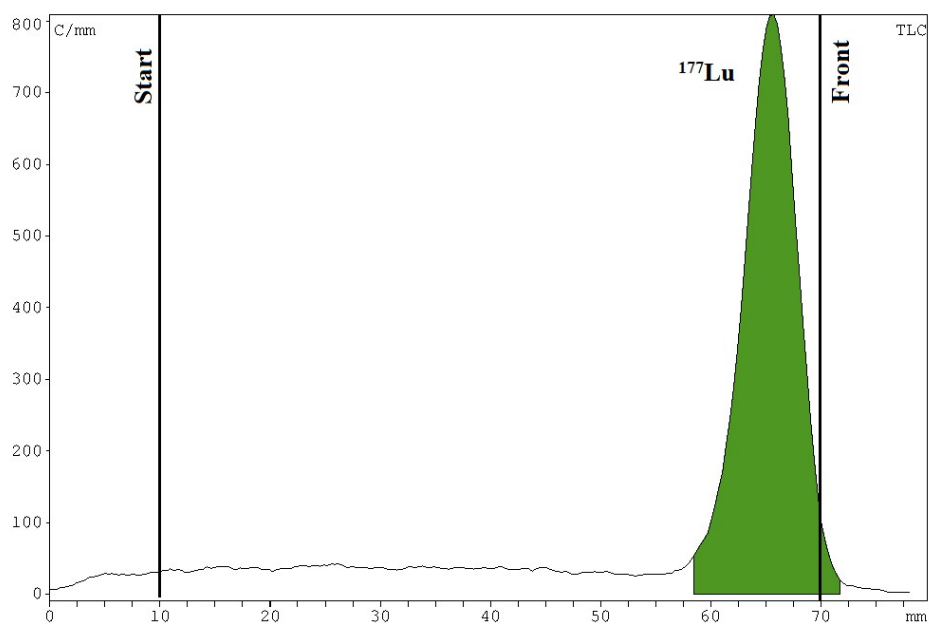
**Figure S8** Stability test of  $[^{205/206}\text{Bi}]\text{Bi-DOTA-IPB-NAPamide}$  in 0.01 M  $\text{Na}_2\text{EDTA}$  solution after 2 hours.



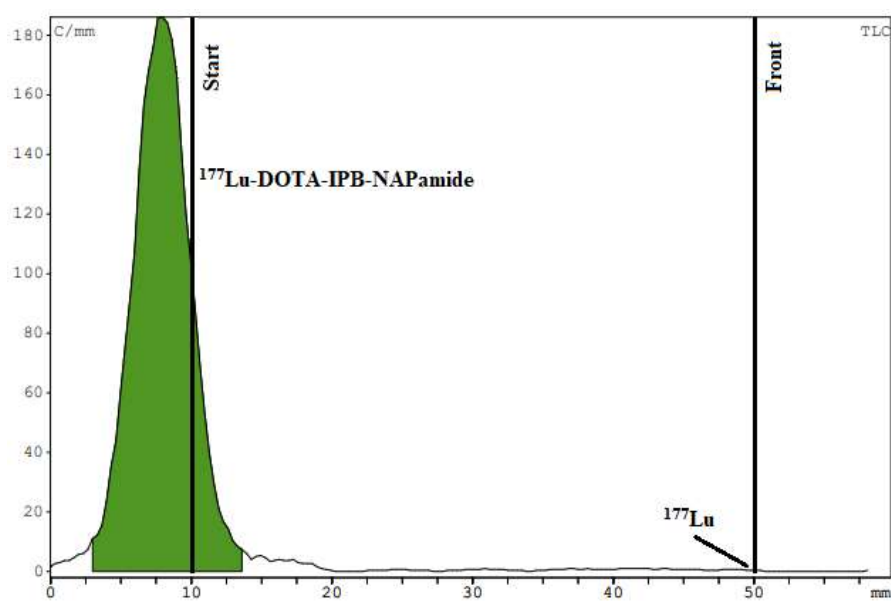
**Figure S9** Metal challenge of  $[^{205/206}\text{Bi}]\text{Bi-DOTA-IPB-NAPamide}$  after 2 hours.



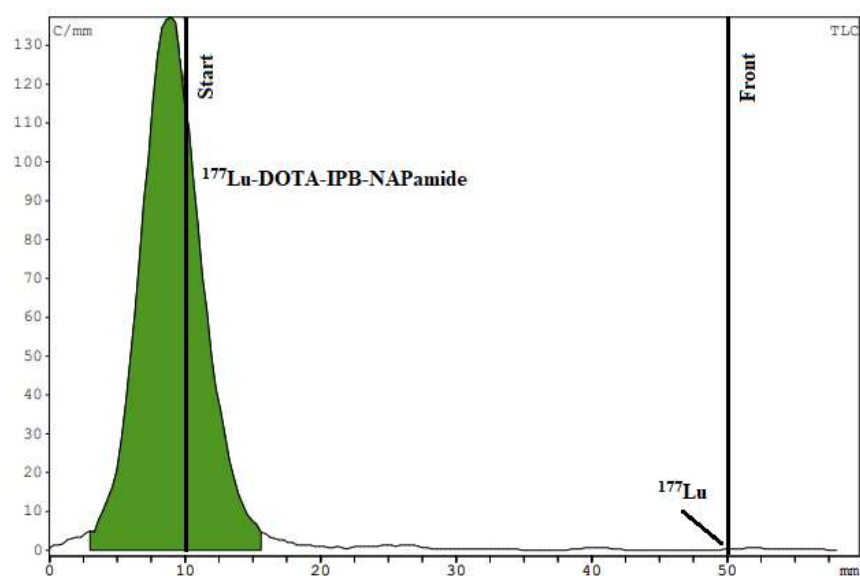
**Figure S10** Stability test of  $[^{205/206}\text{Bi}]\text{Bi-DOTA-IPB-NAPamide}$  in rat serum after 2 hours.



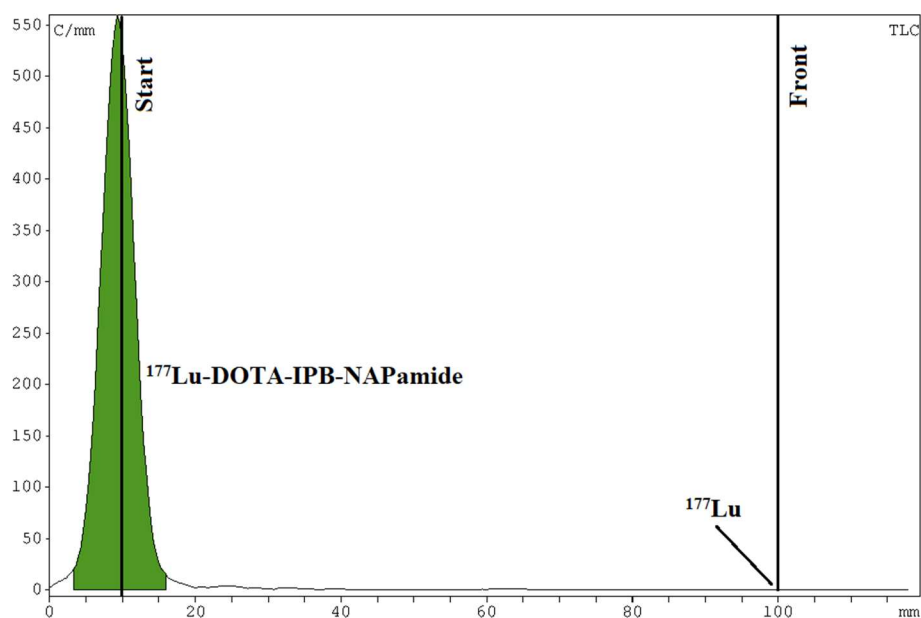
**Figure S11** Radio-TLC chromatogram of [ $^{177}\text{Lu}$ ] $\text{LuCl}_3$  solution.



**Figure S12** Stability test of [ $^{177}\text{Lu}$ ] $\text{Lu}$ -DOTA-IPB-NAPamide in 0.01 M  $\text{Na}_2\text{EDTA}$  solution after 2 days.



**Figure S13** Metal challenge of  $[^{177}\text{Lu}]\text{Lu-DOTA-IPB-NAPamide}$  after 2 days.



**Figure S14** Stability test of  $[^{177}\text{Lu}]\text{Lu-DOTA-IPB-NAPamide}$  in rat serum after 2 days.