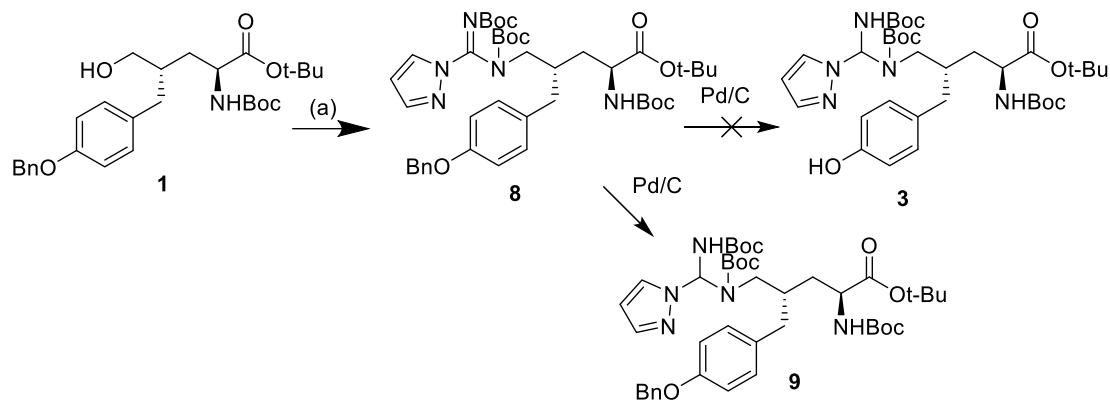


## **Supplemental Information**

### **Design, synthesis and biological evaluation of a novel [<sup>18</sup>F]-labeled arginine derivative for tumor imaging**

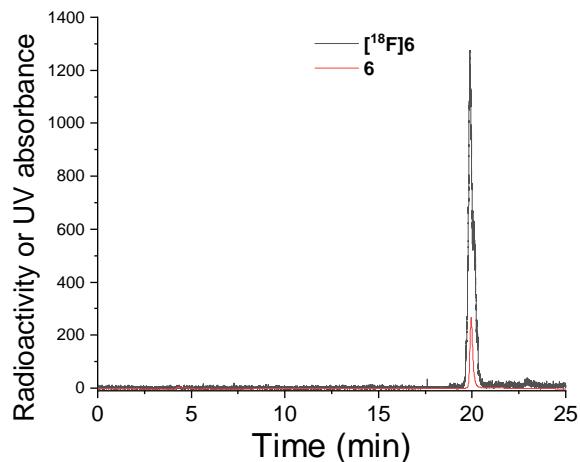
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## 1. Synthesis.

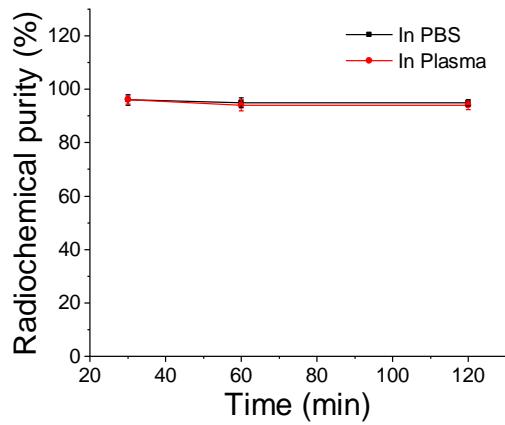


**Scheme S1.** The initial route for synthesizing compound **3**. (a)  $\text{N,N}'\text{-Di-Boc-1H-pyrazole-1-carboxamidine}$ , triphenyl phosphine, diethyl azodicarboxylate, THF,  $0^\circ\text{C}$  - rt, overnight.

## 2. Radiolabeling and *in vitro* stability

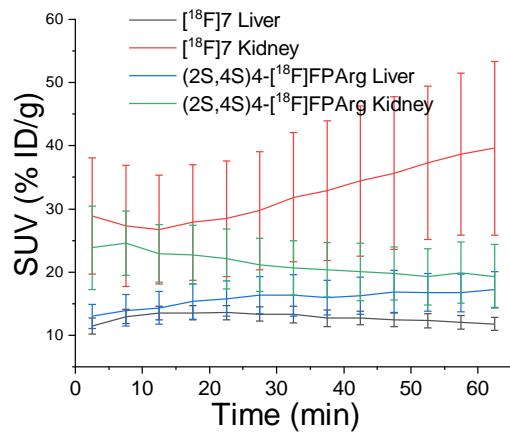


**Figure S1.** HPLC profiles of “cold” **6** and  $[^{18}\text{F}]$ **6**.



**Figure S2.** The stability in PBS and plasma of  $[^{18}\text{F}]7$ .

### 3. MicroPET-CT imaging.



**Figure S3.** Time-activity curves of (2S,4S)- $[^{18}\text{F}]$ FPArg and  $[^{18}\text{F}]7$  uptake in liver and kidney of U87MG tumor-bearing nude mice.

#### 4. NMR of compound

