

Supplement for PET Imaging of the Neurotensin Targeting Peptide NOTA-NT-20.3 Using Cobalt-55, Copper-64 and Gallium-68

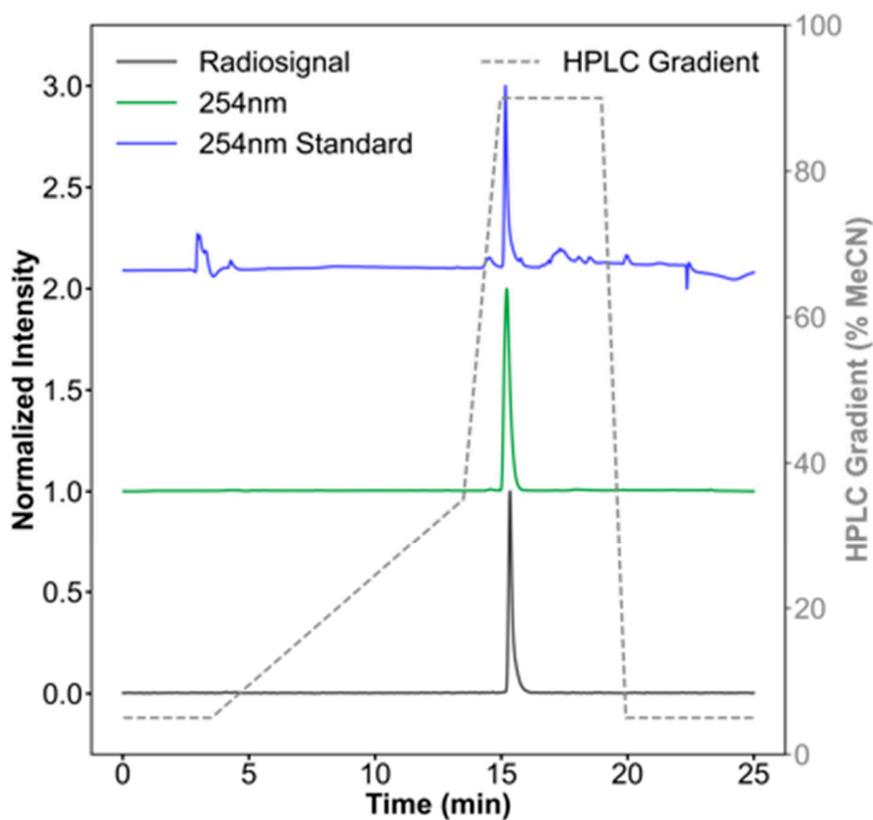


Figure S1. HPLC chromatograms of [^{55}Co]Co-NOTA-NT-20.3 (Radiosignal and 254 nm) and a Co-NOTA-NT-20.3 standard (254 nm standard). A graphical representation of the HPLC solution gradient (mixture of 0.1% TFA H_2O and MeCN) is shown in dashed lines.

A high specific activity method was also developed. [^{55}Co]Co-NOTA-NT-20.3 was radiolabeled at 7.4 MBq/nmol of ligand in pH 4.5 NaOAc buffer and heated at 95°C for 60 min with 2 mg/mL gentisic acid to inhibit radiolysis. Radiochemical purity was assessed by radio-HPLC using a reverse-phase 250 x 4.60 mm C18 5 μm 100Å column (DIONEX) and the gradient outlined in figure 1. The HPLC data in Figure 1 show [^{55}Co]Co-NOTA-NT-20.3 radiolabeled using this method.

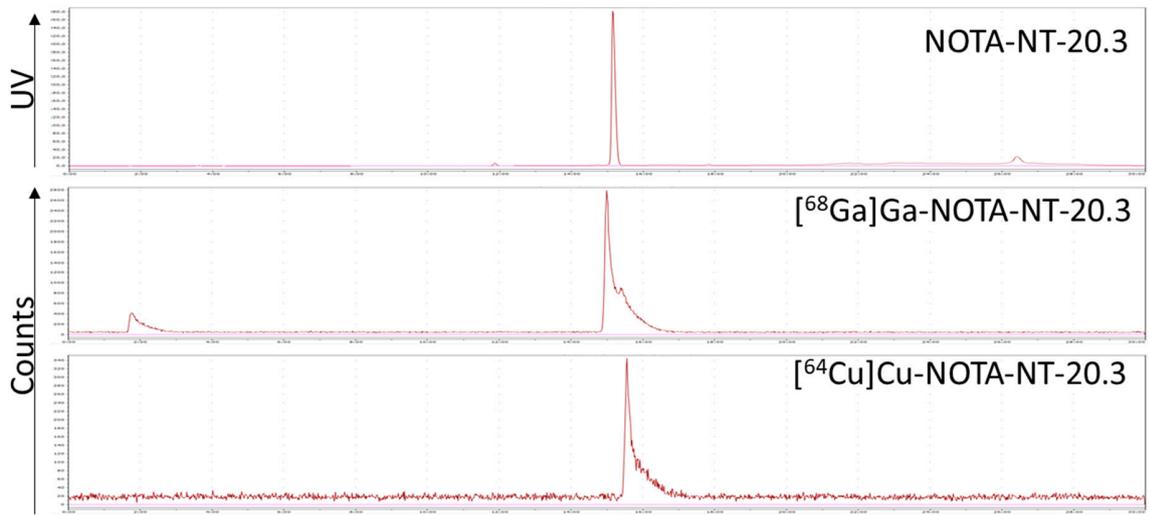


Figure S2. HPLC chromatograms of the [⁶⁸Ga]Ga-NOTA-NT-20.3 and [⁶⁴Cu]Cu-NOTA-NT-20.3.

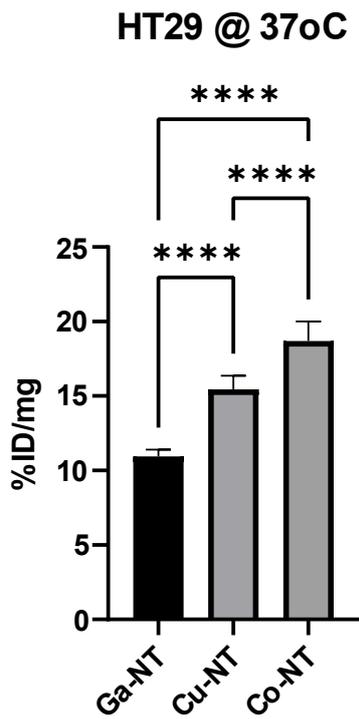
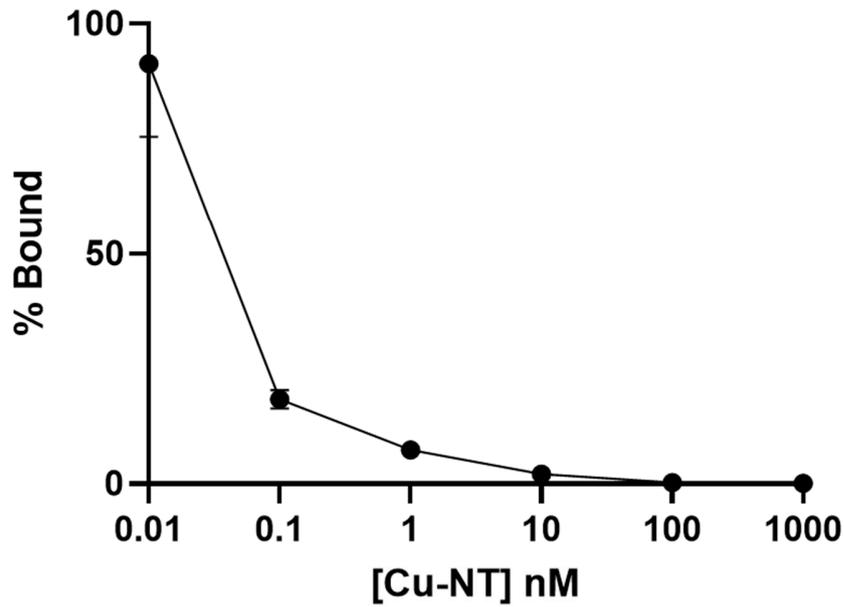


Figure S3. Statistical comparison of cell uptake of [⁶⁸Ga]Ga-NOTA-NT-20.3, [⁶⁴Cu]Cu-NOTA-NT-20.3, and [⁵⁵Co]Co-NOTA-NT-20.3 in HT29 cells. **** $p < 0.0001$.

Cu-64-NT



nM	0.01	0.1	1	10	100	1000
Cell CPM	45	50	150	550	750	2000
Total CPM	50	300	2500	25000	230000	1900000

Figure S4. Saturation binding of [⁶⁴Cu]Cu-NOTA-NT-20.3 shows that the IC₅₀ is below 10 nM.