

Supplemental Figure 1. Structure of LLP2A and stability of LLP2A in serum (A) Structures of LLP2A and bioconjugates with the fluorochromes Cy3 and Cy5, and the CB-TE1A1P chelator. (B) Stability of LLP2A-PEG4-CBTE1A1P-64Cu in macaque serum. $^{64}\text{Cu-LLP2A}$ was incubated in 100% freshly prepared macaque serum at 37°C. At different time points 50 µL of the mixture was taken and serum protein was precipitated with 100 µL acetonitrile and centrifuged at 5000xg for 2 min. The supernatant analyzed using radio-HPLC on a C18 Jupiter column using a gradient from 5% to 100% acetonitrile in 20 minutes. $^{64}\text{Cu-LLP2A}$ was stable in macaque serum for up to 20 hours.