Supporting Information

Self-assemble nanoparticles based on polypeptides containing C-terminal luminescent Pt-cysteine complex

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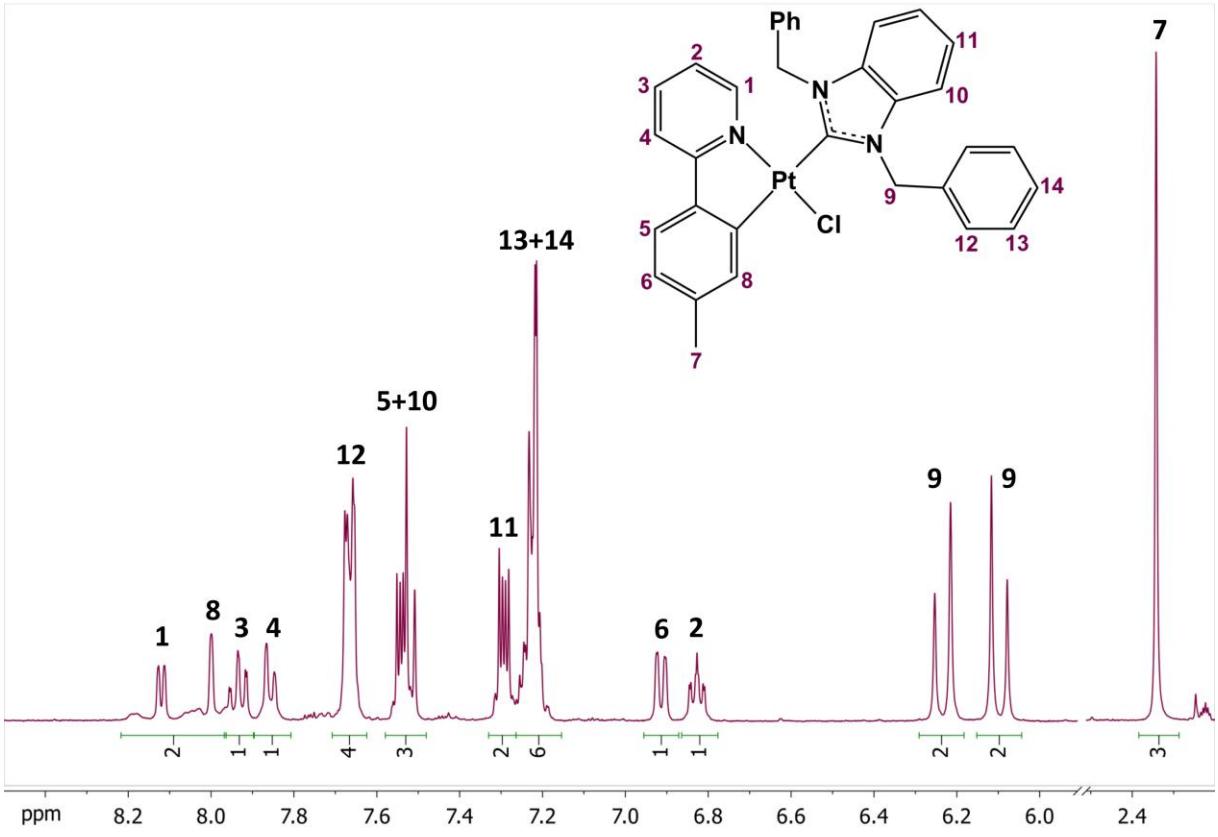


Figure S1. ^{1}H NMR spectrum of **1** ***trans*** (acetone-d_6, ambient temperature).

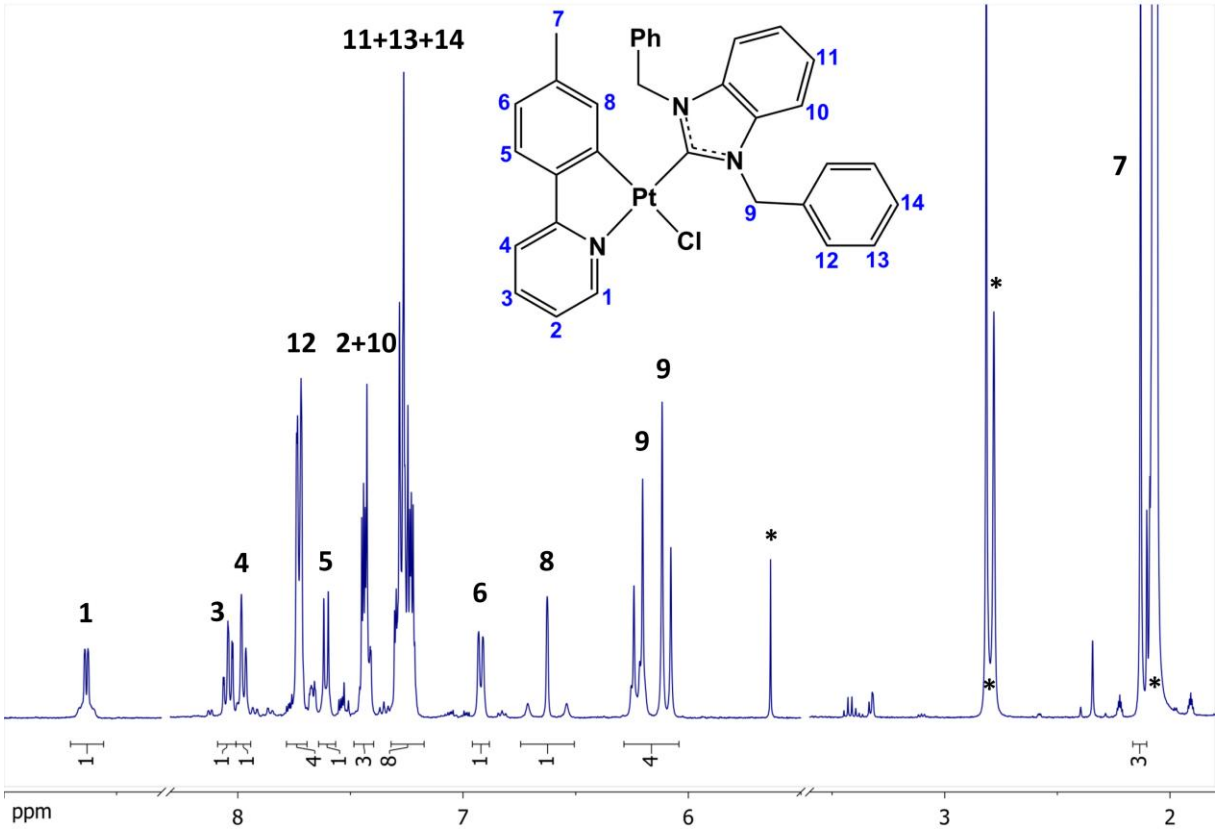


Figure S2. ^{1}H NMR spectrum of **1** ***cis*** (acetone-d_6, ambient temperature).

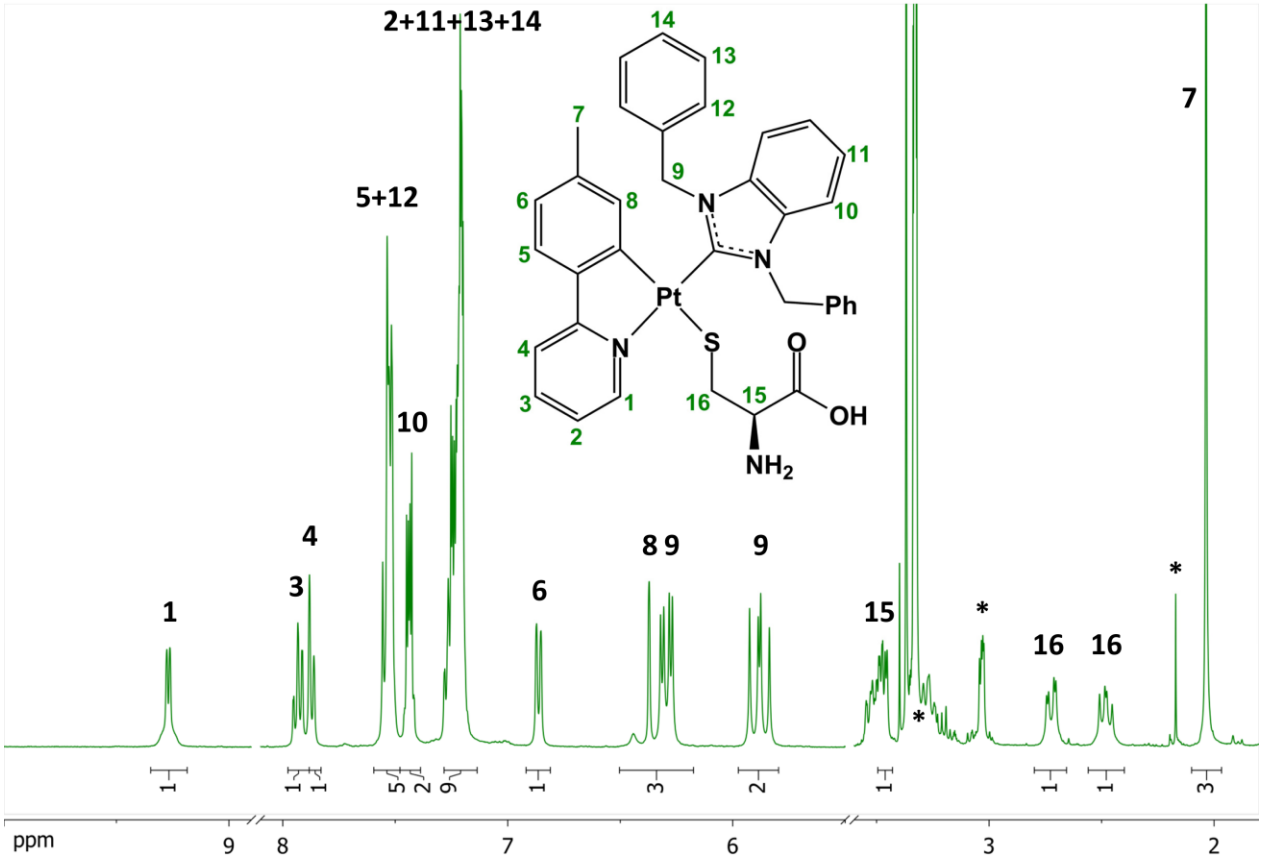


Figure S3. ^{1}H NMR spectrum of **2** (methanol-d_4, ambient temperature).

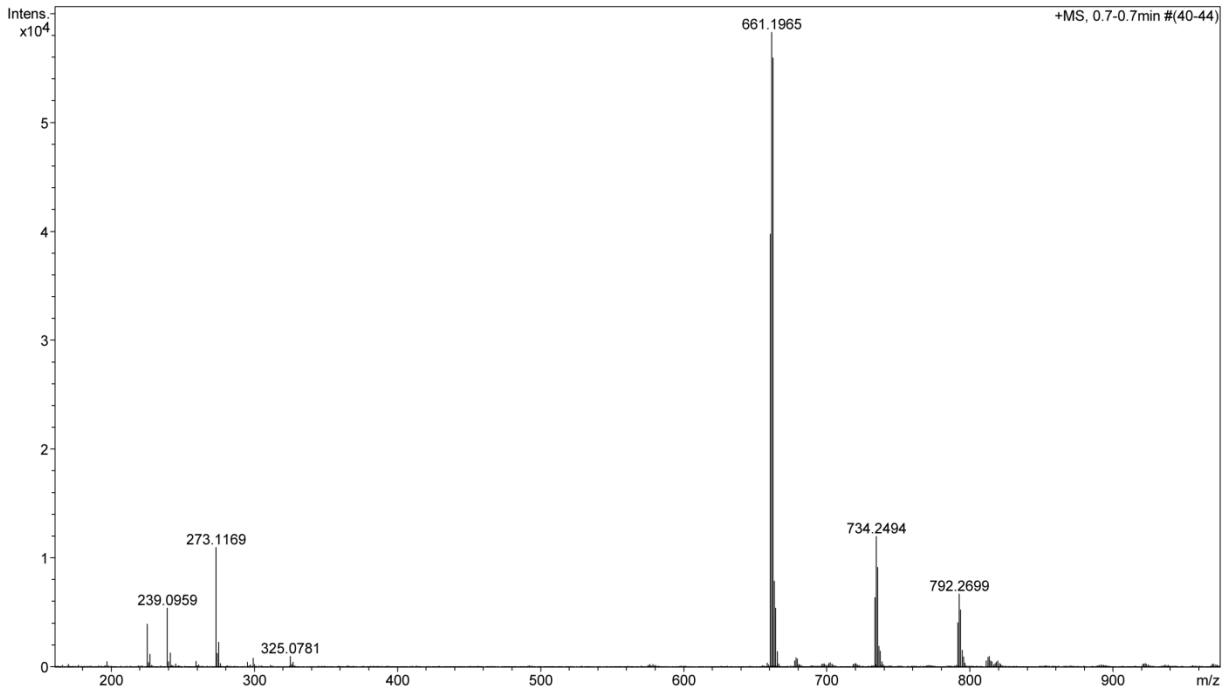


Figure S4. ESI$^+$ MS spectrum of **1**.

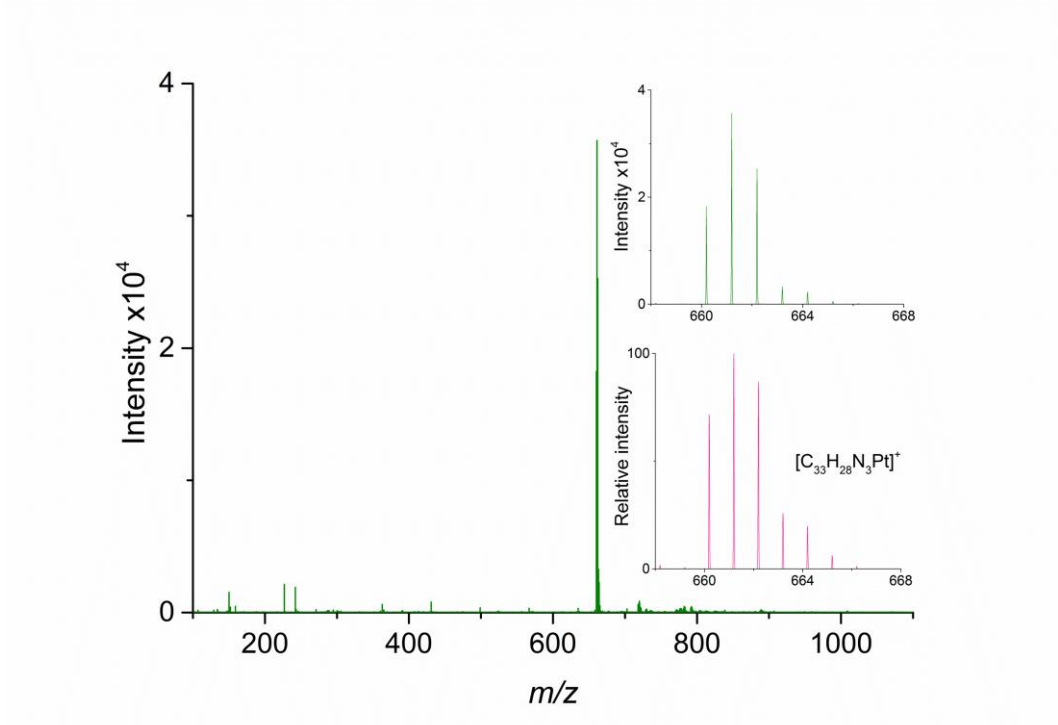


Figure S5. ESI$^+$ MS spectrum of **2** (green − experimental spectrum, pink − simulated signal with *m/z* 661.19 $[M - Cys]^+$).

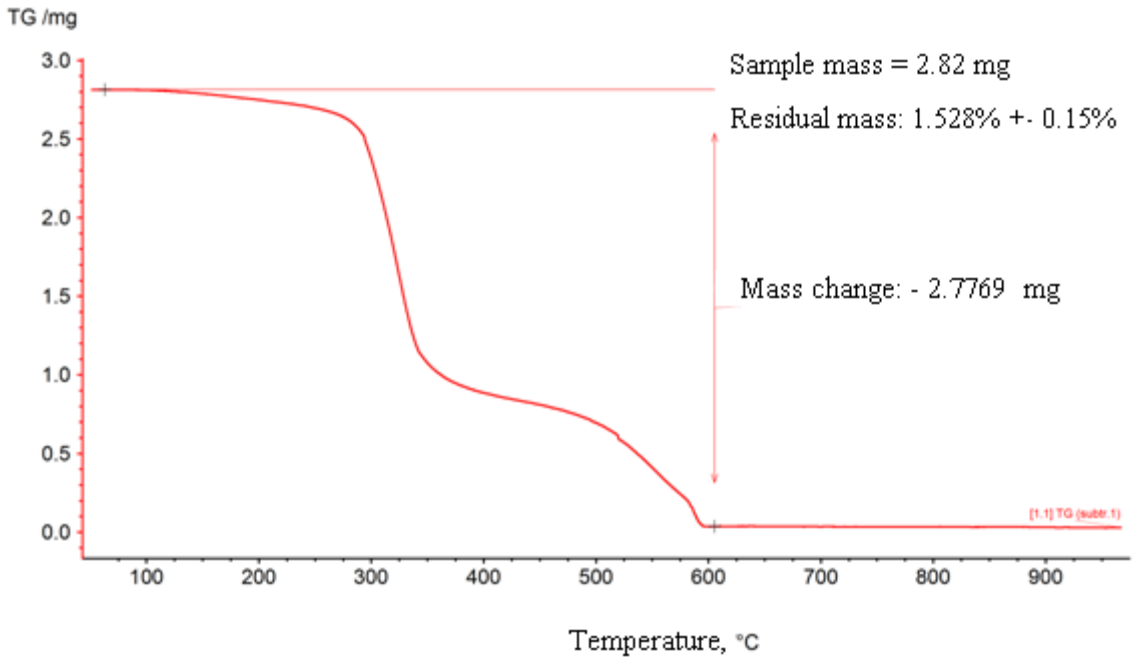


Figure S6. Thermogram of **2**-P(Bzl)Glu and Pt content calculation *vide infra*.

The Pt content in the samples was calculated as follows:

$$m(Pt)_{theoretical} = \frac{M\,(Pt) \times m(polymer)}{Mn(polymer)};$$

$$\eta = m\,(Pt)_{TGA} / m\,(Pt)_{theoretical} \times 100\%$$

Thus, for **2**-P(Bzl)Glu:

$$m\,(Pt)_{TGA} = 0.0431 \text{ mg}$$

$$m\,(Pt)_{theoretical} = (195 \times 2.82)/11500 = 0.04782 \text{ mg}$$

$$\eta = 0.0431/0.04782 \times 100\% = \mathbf{90.1\ \%}$$

According to TGA analysis, the mass change for **2**-P(Z)Lys was equal to 0.47%, that corresponds to m $(Pt)_{TGA}$ = 0.02462 mg. Taking into account that m $(Pt)_{theoretical}$ was 0.03199 mg, η was calculated to be **76.9%.**

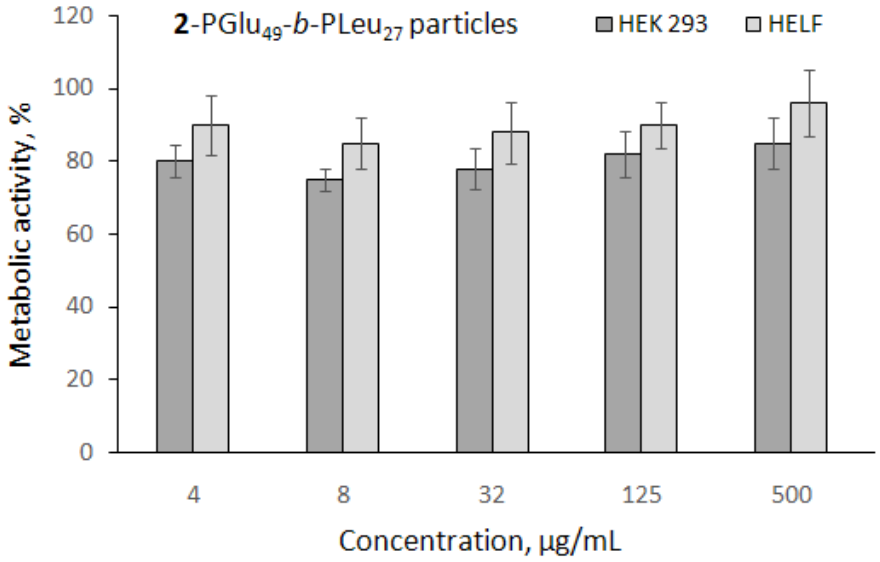
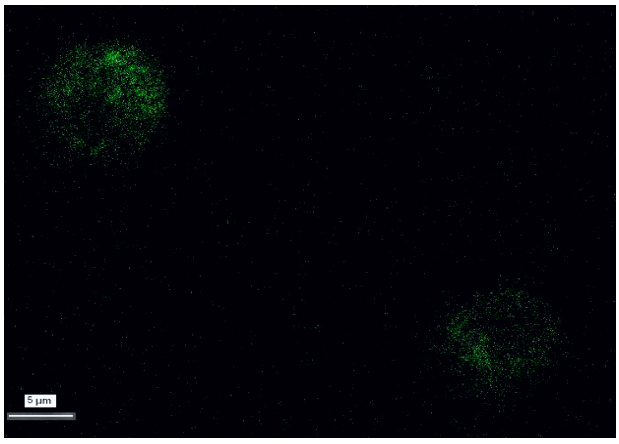


Figure S7. MTT assay of **2**-PGlu-*b*-PLeu particles.

(A)



(B)

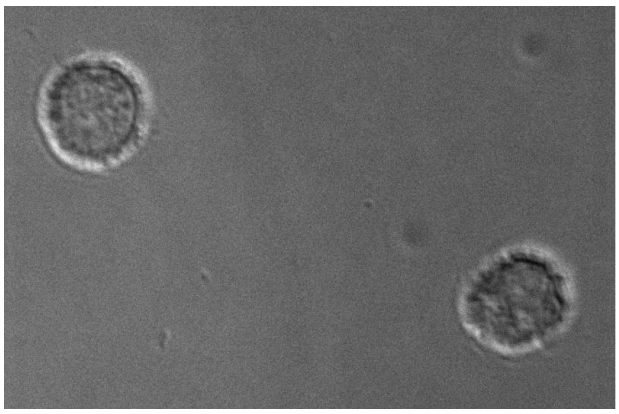


Figure S8. Broad area confocal images of U937 cells incubated with **2**-PLys$_{119}$-*b*-PLeu$_{141}$ nanoparticles: (A) fluorescent (buffer, pH 7.4; λ_{ex} = 375-400 nm, λ_{em} = 500-530 nm) and bright-field (B).