

Supporting Information

Terminal PEGylated DNA-Gold Nanoparticle Conjugates Offering High Resistance to Nuclease Degradation and Efficient Intracellular Delivery of DNA Binding Agents

Lei Song,[†] Yuan Guo,[†] Deborah Roebuck,[‡] Chun Chen,[§] Min Yang,^ϕ Zhongqiang Yang,[§] Sreejesh Sreedharan,^ξ Caroline Glover,^ξ Jim A. Thomas,^ξ Dongsheng Liu,[§] Shengrong Guo,^{†,*} Rongjun Chen,^{‡,*} and Dejian Zhou^{†,*}

[†] *School of Chemistry and Astbury Structure for Molecular Biology, University of Leeds, Leeds LS2 9JT, UK. Email: s.guo@leeds.ac.uk (S.G.) or d.zhou@leeds.ac.uk (D.Z.)*

[‡] *Department of Chemical Engineering, Imperial College London, South Kensington Campus, London SW7 2AZ, UK. Email: rongjun.chen@imperial.co.uk (R.C.)*

[§] *Department of Chemistry, Tsinghua University, Beijing 100084, P. R. China.*

^ϕ *UCL School of Pharmacy, University College London, 29-39 Brunswick Square, London WC1N 1AX, UK.*

^ξ *Department of Chemistry, University of Sheffield, Sheffield S3 7HF, UK.*

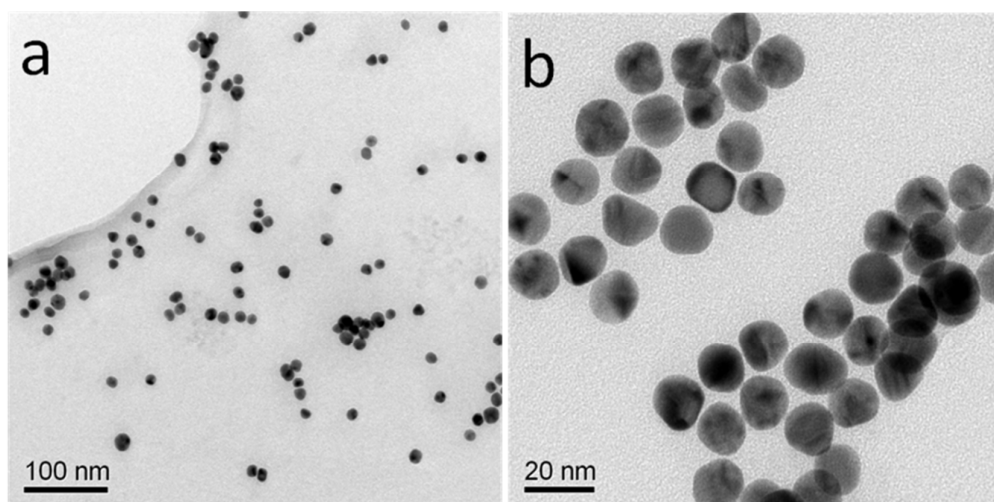


Figure S1. Representative TEM images of the citrate stabilised gold nanoparticle (mean diameter ~14 nm) used in this study under low (a) and high (b) magnifications.

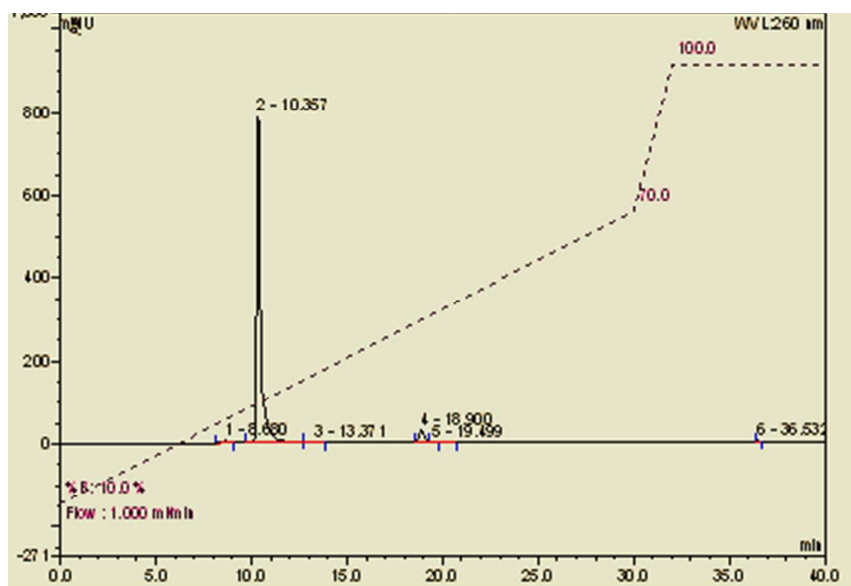


Figure S2. A typical HPLC eluting profile of the MC2-SH.

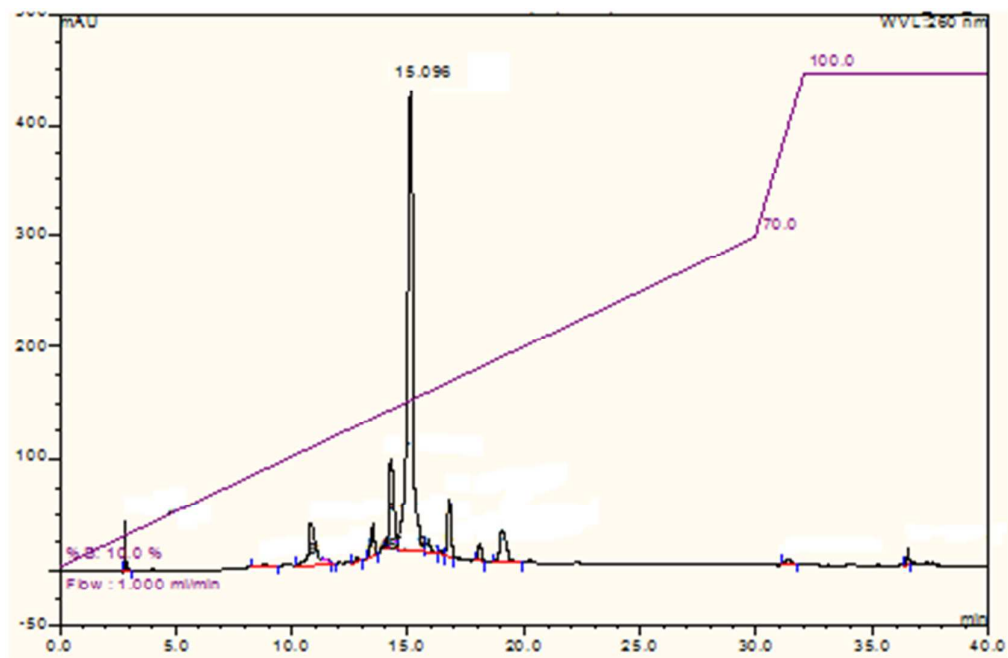


Figure S3. A typical HPLC eluting profile of the prepared MC2(EG₁₂)₃ before purification. The dominate peak with a retention time of 15.096 min is found to be the desired MC2(EG₁₂)₃ product, confirming a high conversion rate of the MC2-SH into the desired product.

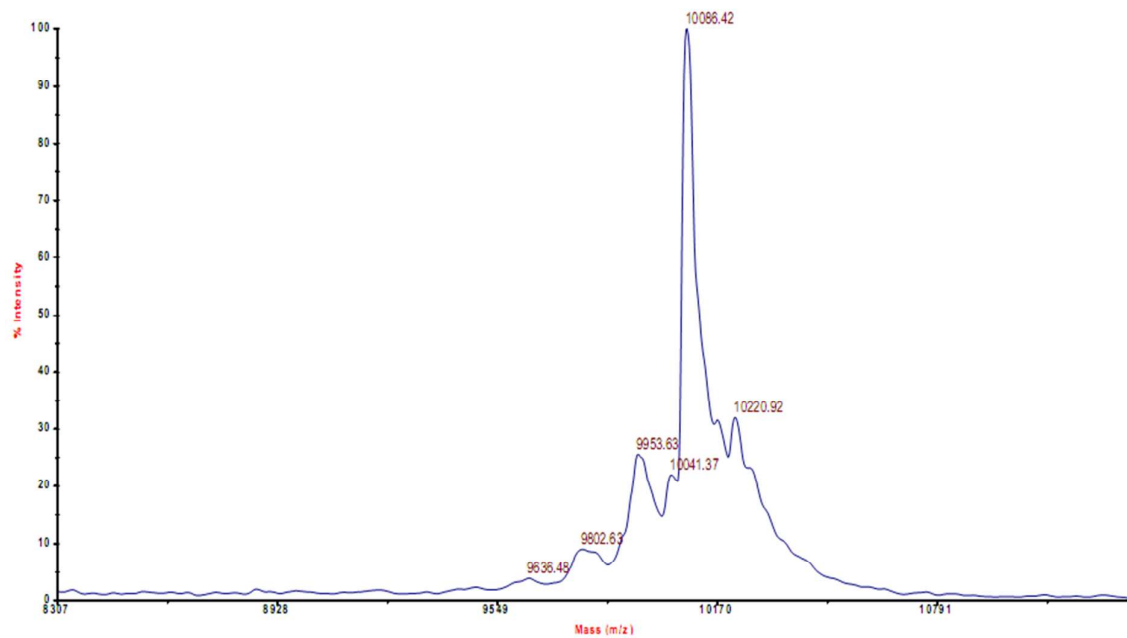


Figure S4. MALDI-TOF MS spectrum of the purified MC2(EG₁₂)₃. The main peak 10086 (10041 + 2Na⁺ - H) matches the expected molecular weight of the desired MC2(EG₁₂)₃ (10041) product.