

Supporting Information

Gold nanorods assembled ZnGa₂O₄:Cr nanofibers for LED-amplified gene silencing in cancer cells

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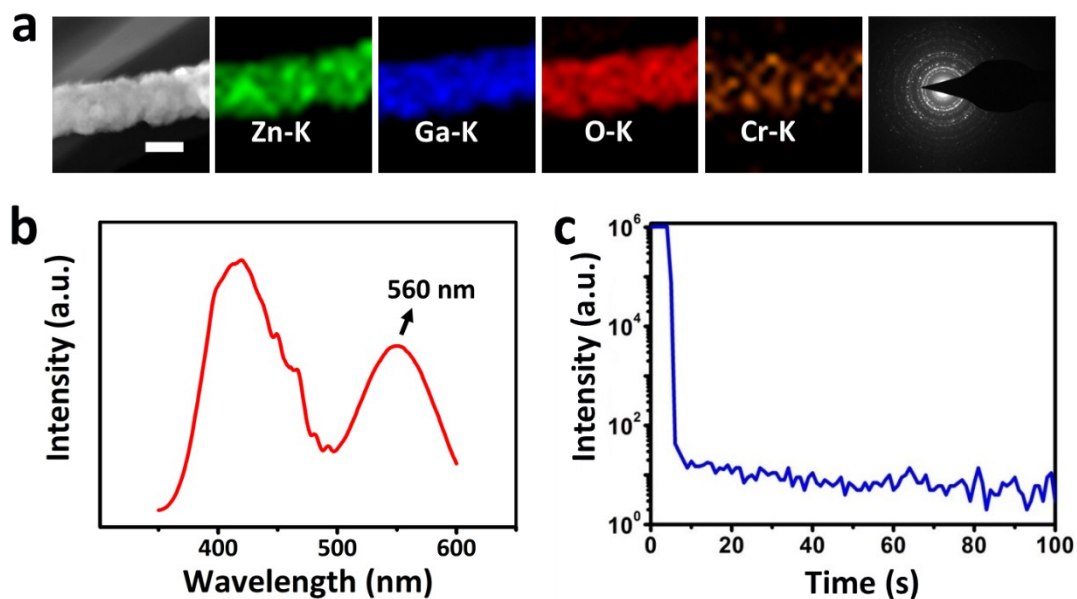


Figure S2. (a) EDS element mapping (scale bar is 100 nm); (b) Xenon lamp excitation spectrum of ZGOC nanofibers; (c) Long persistent duration of ZGOC nanofibers excited by a 560 nm Xenon lamp for 100s.

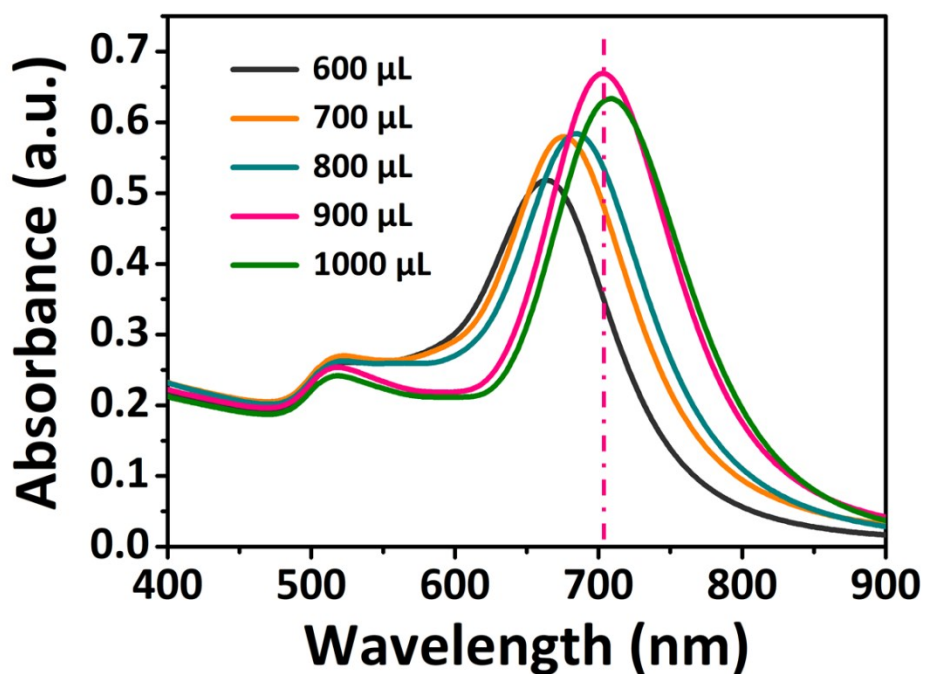


Fig. S3 UV-vis spectra of gold nanorods prepared with different content of AgNO_3 solutions (10 mM).

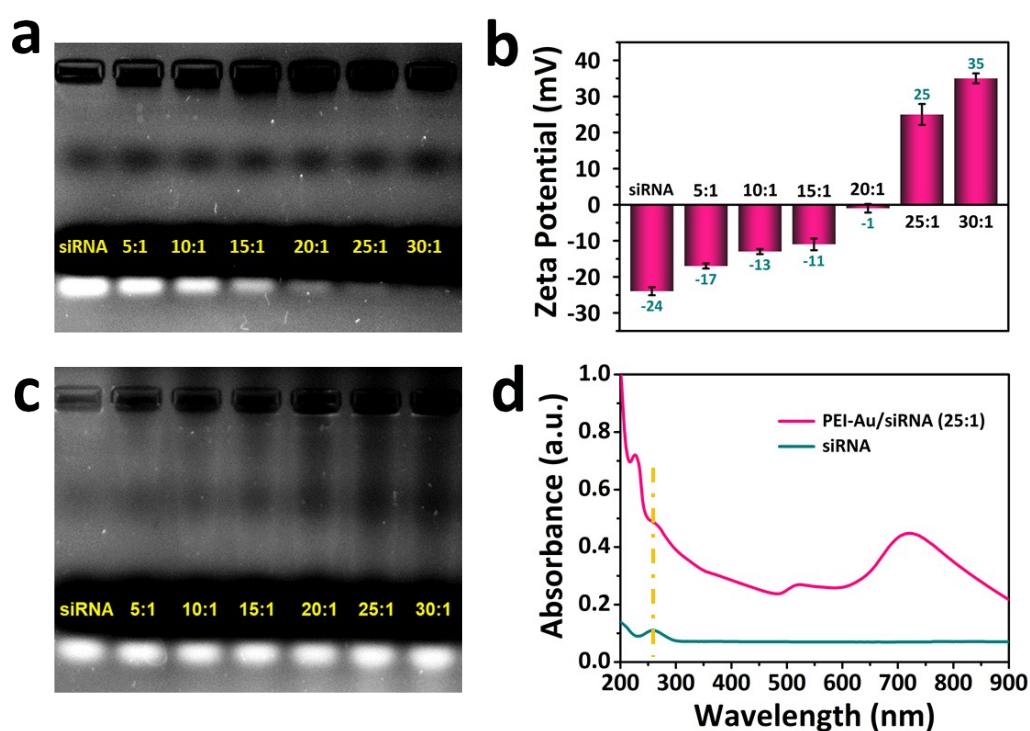


Fig. S4 Optimization and siRNA release from the PEI-Au/siRNA. (a) Agarose gel retardation assay of PEI-Au/siRNA complexes under varied weight ratios (5:1, 10:1, 15:1, 20:1, 25:1, and 30:1). (b) The relationship between Zeta potential and weight ratios. (mean of five measurements) (c) protection of siRNA against RNaseA digestion and siRNA release by competitive binding sodium dodecyl sulfate (SDS) with carriers after degradation. Naked siRNA was used as a control. (d) UV-vis spectra of PEI-Au/siRNA particles prepared at a weight ratio of 25:1 and naked siRNA.

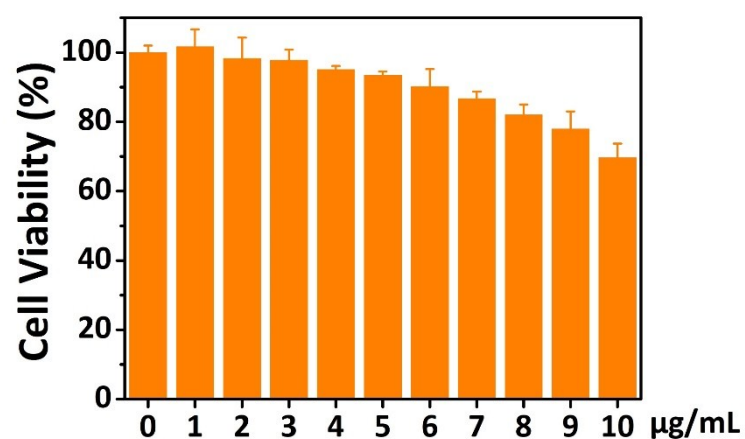


Fig. S5 MTT assay of cell viability incubation with PEI.

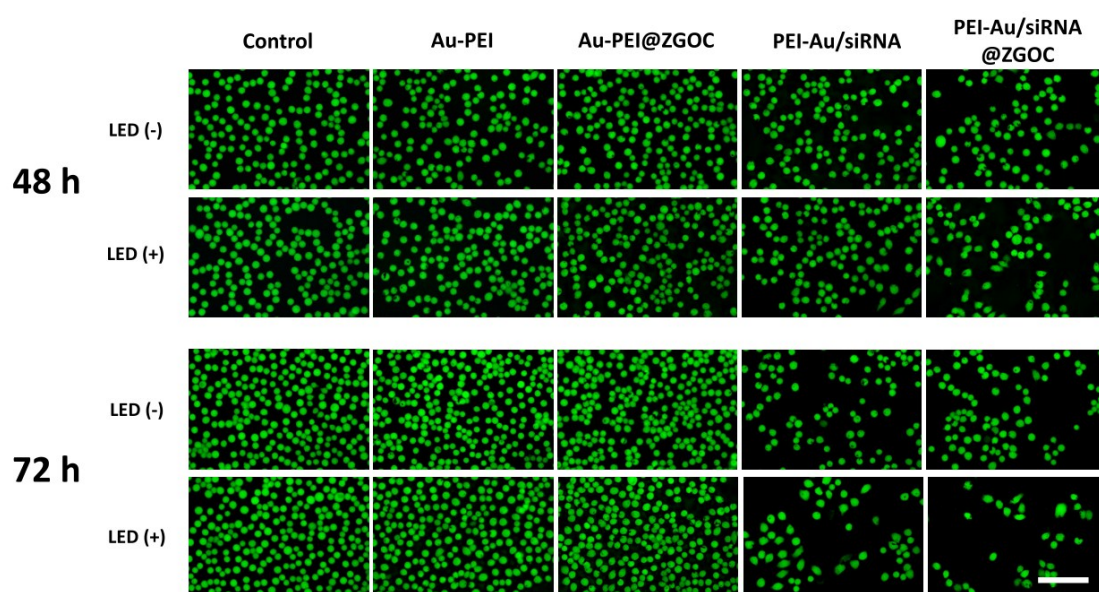


Fig. S6 Fluorescent images of HepG2 cells incubated with Au-PEI, PEI-Au@ZGOC, PEI-Au/siRNA and PEI-Au/siRNA@ZGOC in response to LED for 48 h and 72 h. The cells were stained with green fluorescence by calcein-AM. The scale bar is 100 μm .