Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Conjugation with gold nanoparticles improves the stability of the KT2 peptide and maintains its anticancer properties

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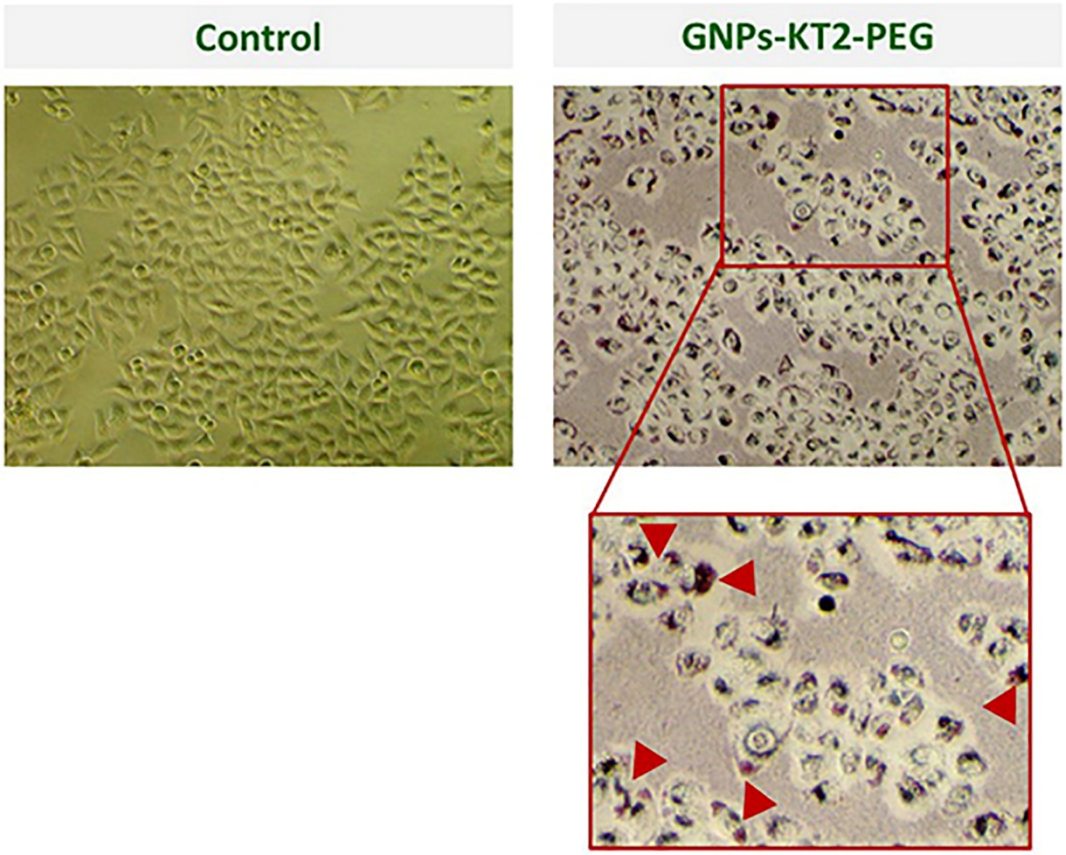

Fig. S1 shows purple aggregated nanoparticles localized in cells under light microscope (400X). The cells were seeded at 1×10^4 cells per well into a 96-well plate and incubated for 24 h before being treated with or without GNPs-KT2-PEG for 24 h.

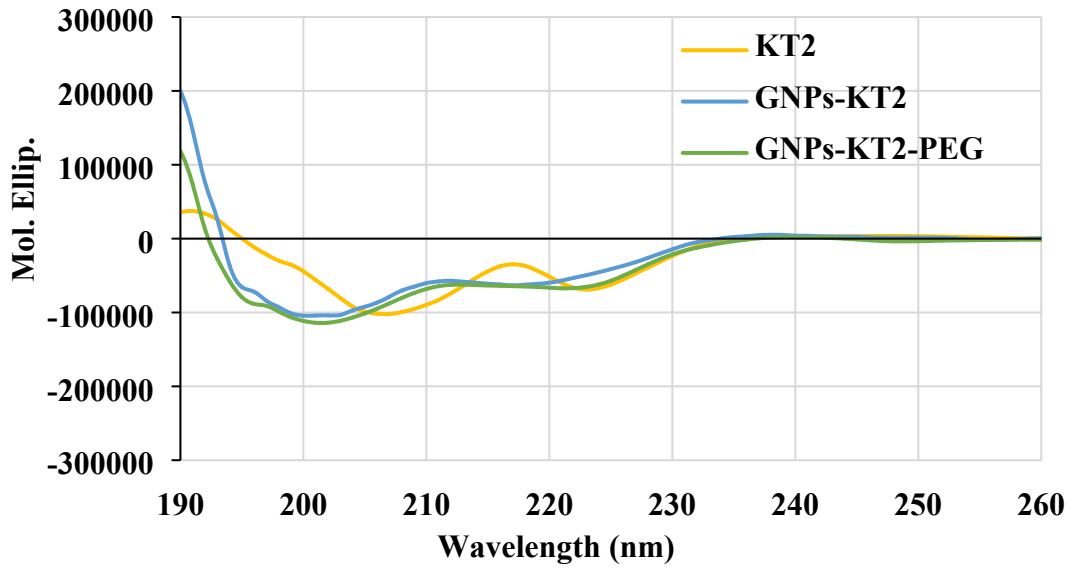

Fig. S2 Circular dichroism studies on the protein secondary structure of KT2, GNPs-KT2, and GNPs-KT2-PEG. The average spectra were measured by a Jasco J-815 spectropolarimeter in the range 190–260 nm, using a 1 mm optical path length quartz cell at 25 °C. The parameters were set to 20 nm/min scanning speed at an interval of 0.1 nm, 1 s response time and 1.0 nm bandwidth.

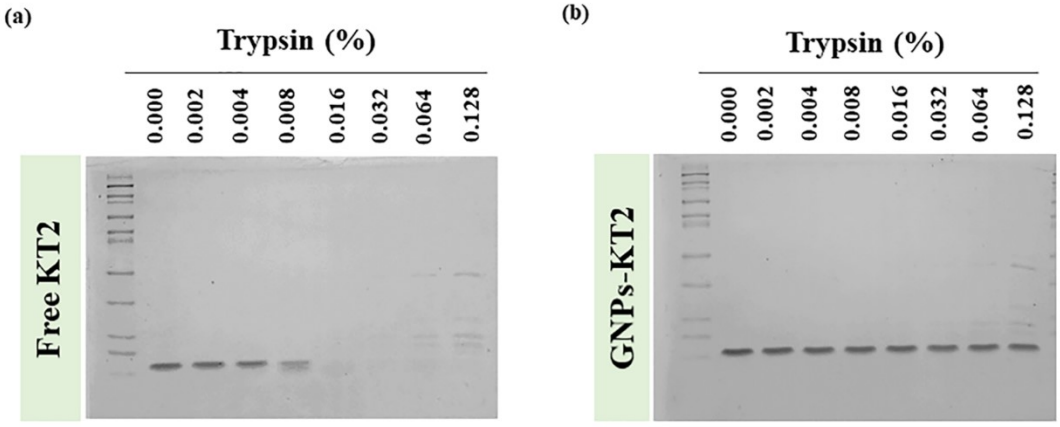

Fig. S3 Stability of free and conjugated KT2 peptides under trypsin treatment. (A) Free KT2 peptides and (B) GNPs-KT2 with the same amount of KT2 peptides were exposed to a range of trypsin concentrations, and the amount of undigested KT2 peptides was visualized by SDS-PAGE followed by protein staining.