Electronic Supplementary Material (ESI) for Biomaterials Science. This journal is © The Royal Society of Chemistry 2015

## **Electronic Supplementary Information**

## of

## Co-delivery of proapoptosis peptide and p53 DNA by reduction-sensitive

## polypeptides for cancer therapy

Si Chen, Lei Rong, Hui-Zhen Jia, Si-Yong Qin, Xuan Zeng, Ren-Xi Zhuo, Xian-

Zheng Zhang<sup>\*</sup> $\Box$ 

Key Laboratory of Biomedical Polymers of Ministry of Education & Department of Chemistry, Wuhan University, Wuhan 430072, PR China.

E-mail address: xz-zhang@whu.edu.cn (X. Z. Zhang); Tel. & Fax: 86-27-68754509.

Fig. S1. The CD spectra of xPolyR<sub>8</sub>, KLA(TPP) and xPolyR<sub>8</sub>-KLA(TPP). The positive bands near 208 nm and 220 nm were indicative of  $\alpha$ -helical conformation of KLA(TPP) and xPolyR<sub>8</sub>-KLA(TPP)



Fig. S2 Agarose gel electrophoresis retardation assay of (A) xPolyR<sub>8</sub>/pGL-3 complex,(B) C-KLA(TPP)/pGL-3 complex and (C) xPolyR<sub>8</sub>-KLA(TPP)/pGL-3 complex at

different w/w ratios.

**Fig. S3** Particle size of vector/pGL-3 complexes at w/w ratios ranging from 5 to 40 (A) and zeta potential of vector/pGL-3 complexes at w/w ratios ranging from 5 to 40 (B).

Data are shown as the mean  $\pm$  SD (n = 3).

Fig. S4 TEM images of vector/pGL-3 complexes at w/w ratio of 20. A: xPolyR<sub>8</sub>/pGL-3 complex; B: KLA(TPP)/pGL-3 complex; and C: xPolyR<sub>8</sub>-KLA(TPP)/pGL-3 complex.



Fig. S5 The transfection of p53 mediated by vector/p53 complexes at w/w ratio of 20.(A) xPolyR<sub>8</sub>; (B) C-KLA(TPP); and (C) xPolyR<sub>8</sub>-KLA(TPP).