Electronic Supplementary Information (ESI)

Of

ATP Triggered Drug Release and DNA Co-delivery Systems based on the ATP Responsive Aptamers and Polyethylenimine Complexes

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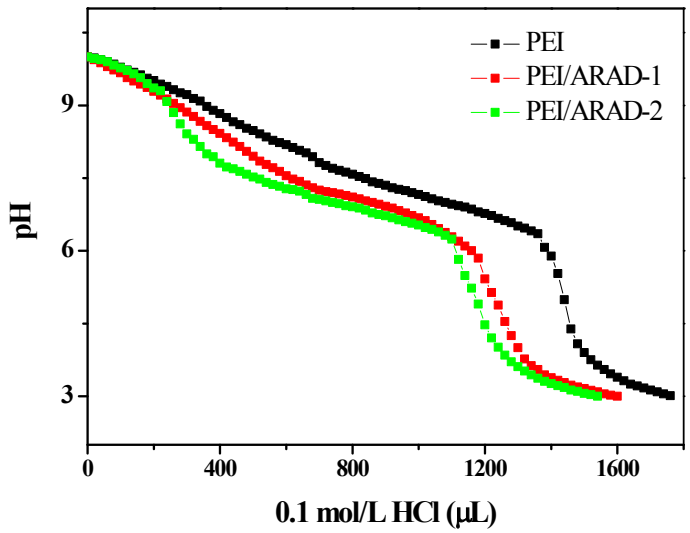


Figure S1. Acid-base titration profiles of PEI, PEI/ARAD-1(PEI= 0.46 μM , ARAD 0.34 μM) and PEI/ARAD-2 (PEI= 0.46 μM , ARAD 0.68 μM) in 150 mM aqueous NaCl solutions.

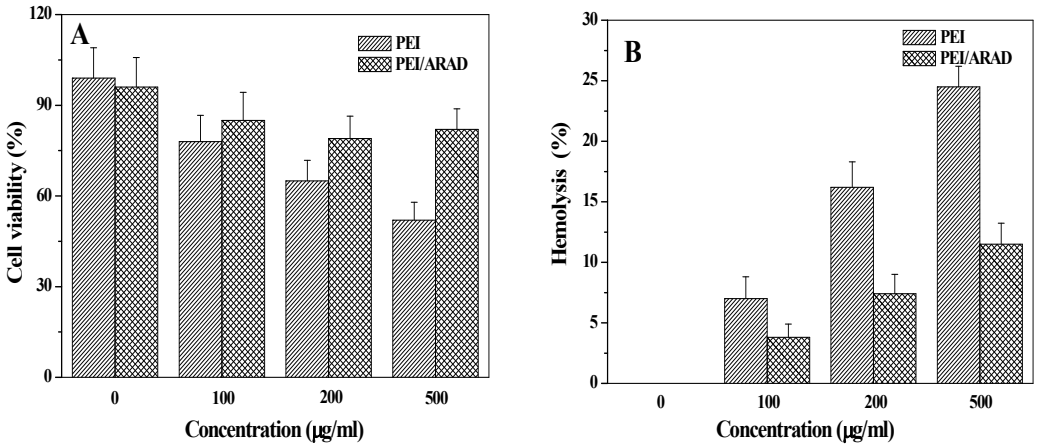


Figure S2. (A) MTT results of PEI/ARAD and PEI at different concentrations on Hela cells. (B) Effect of the concentrations of PEI/ARAD and PEI on hemolysis.

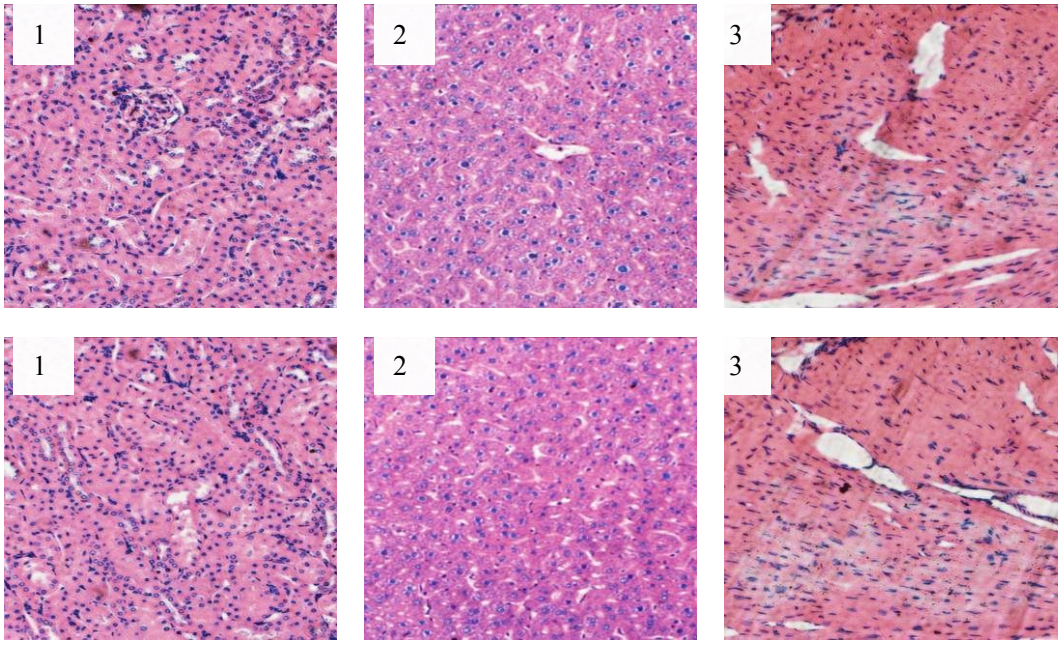
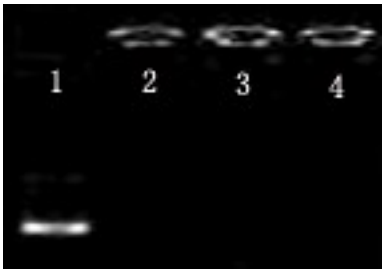
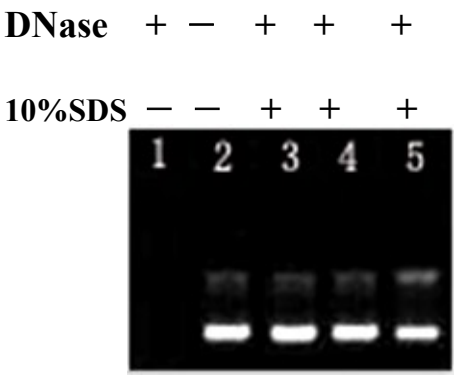


Figure S3 Representative organ histology for control (top row) and PEI/ARAD (bottom row) injected mice: 1. Kidney, 2. Liver, 3. Heart (PEI= 0.46 μM , ARAD 0.34 μM)



B



C

Figure S4. (A)Agarose gel electrophoresis retardation assay of PEI/ARAD/p53 complexes, , 1: p53(p53=2μg/ml); 2: PEI/p53(PEI=9.78μg, p53=2μg/ml); 3: PEI/ARAD/p53-1 (PEI=9.78μg, ARAD=4.76μg, p53=2μg/well); 4 PEI/ARAD/p53-2(PEI=9.78μg, ARAD=9.52μg, p53=2μg/well) (B) Protection and release assay of p53 1:p53(p53=2μg/ml); 2: p53(p53=2μg/ml); 3: PEI/p53(PEI=9.78μg, p53=2μg/ml); 4: PEI/ARAD/p53-1 (PEI=9.78μg, ARAD=4.76μg, p53=2μg/well); 5 PEI/ARAD/p53-2(PEI=9.78μg, ARAD=9.52μg, p53=2μg/well)