

Therapeutic Peptide Amphiphile as a Drug Carrier with ATP-triggered Release for Synergistic effect, Improved Therapeutic Index and Penetration of 3D Cancer Cell Spheroids

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Supporting information

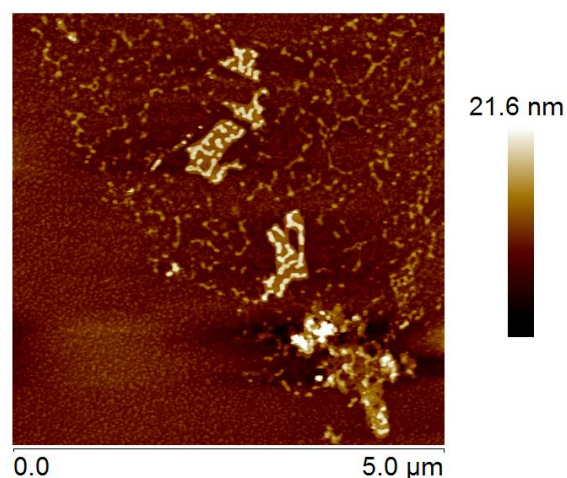


Figure S1. AFM image of PAH6 at the concentration of 60 µg/ml.

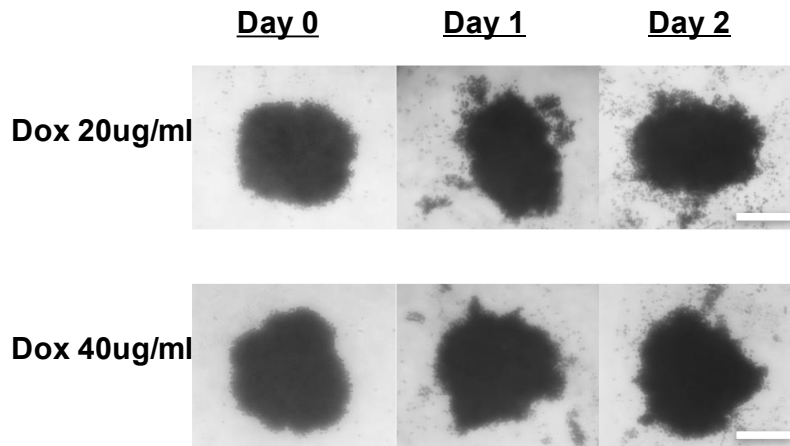


Figure S2. Optical micrographs of 3D A549 spheroids treated with Dox. The scale bar indicates 260 μm .

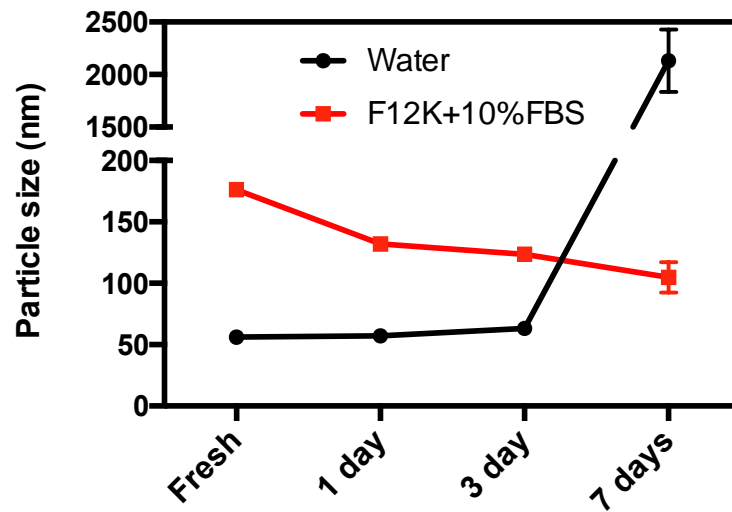
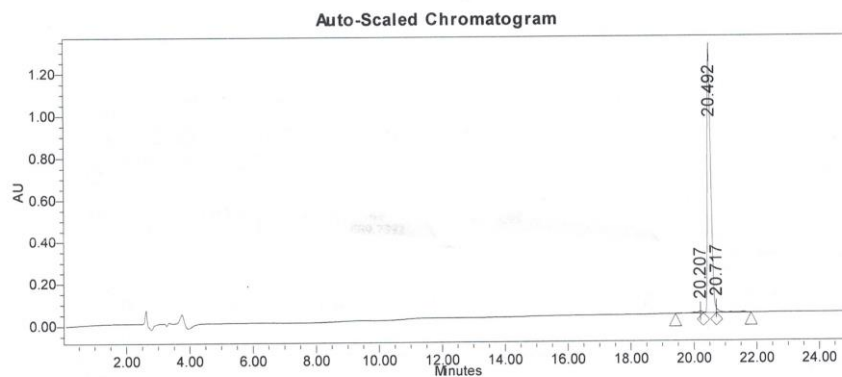


Figure S3. The averaged particle size of the Dox-DNA/PAH6 nano-complex in water or in F12K media containing 10% of FBS. The mass ratio of PAH6 to Dox-DNA is at 60:11. Error bars represent s.d. (n=3).



Peak Results

Name	RT	Area	Height	% Area
1	20.207	95714	8677	0.96
2	20.492	9630995	1273264	96.67
3	20.717	236397	21648	2.37

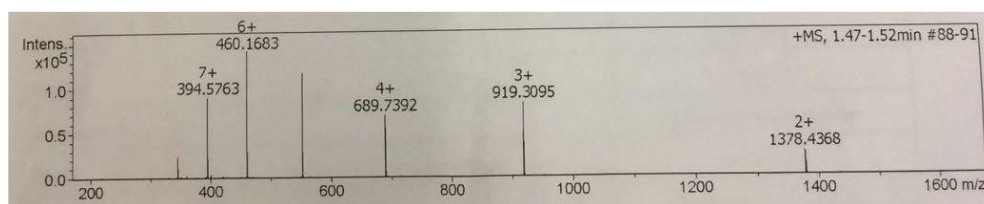


Figure S4. HPLC spectra of PAH6 (Top) and MS results for PAH6 (bottom) provided by the supplier.

Table S1. The sequences of oligonucleotides.

Oligonucleotide	Sequence
ATP aptamer	5'-ACC TGG GGG AGT ATT GCG GAG GAA GGT-3'
Complementary DNA of ATP aptamer	5'-ACC TTC CTC CGC AAT ACT CCC CCA GGT-3'

Table S2. Combination index values of Dox-DNA/PAH6 on different cell lines.

CI values	A549	HCT116	NIH-3T3
Dox-DNA/PAH6 (11:40)	0.72	N/A	>1
Dox-DNA/PAH6 (11:60)	0.43	0.51	>1