

## Supporting Information

*for*

Assembly of Aptamer Switch Probes and  
Photosensitizer on Gold Nanorods for Targeted  
Photothermal and Photodynamic Cancer Therapy

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Photosensitizer on Gold Nanorods for Targeted  
Photothermal and Photodynamic Cancer Therapy

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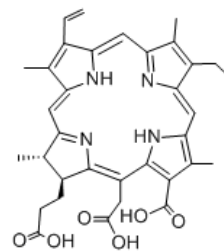
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**TABLE S1 Sequences summary**

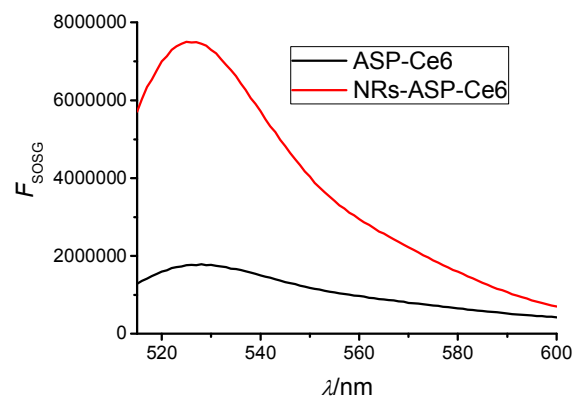
Name	Sequences
Lib	5'-SH-ATC CAG AGT GAC GCA GCA NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN NNN TGG ACA CGG TGG CTT AGT- FAM-3'
Sgc8	<b>5'-SH-A TCT AAC TGC TGC GCC GCC GGG AAA ATA CTG TAC GGT TAG A-FAM-3'</b>
ASP-T <sub>n</sub> (n=0, 8, 16, 24, 32, 40)	5'-SH-CTA ACC GTT <sub>n</sub> ATC TAA CTG CTG CGC CGC CGG GAA AAT ACT GTA CGG TTA GA-FAM-3'
ASP-T <sub>32</sub> -Ce6	5'-SH-CTA ACC GTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TAT CTA ACT GCT GCG CCG CCG GGA AAA TAC TGT ACG GTT AGA-Ce6-3'
<i>cASP-T<sub>32</sub></i>	<i>5'-TCT AAC CGT ACA GTA TTT TCC CGG CGG CGC AGC AGT TAG ATA AAA AAA AAA AAA AAA AAA AAA AAA AAA AAA AAC GGT TAG-3'</i>

N represents A, T, C or G base.

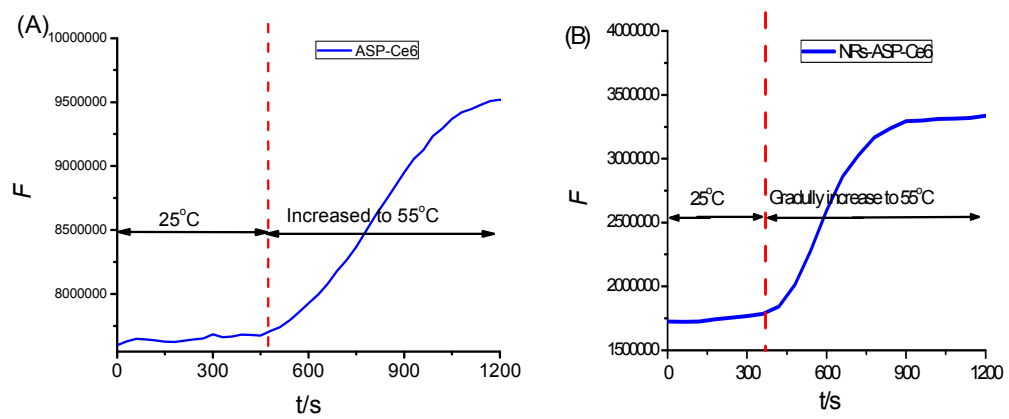
Ce6



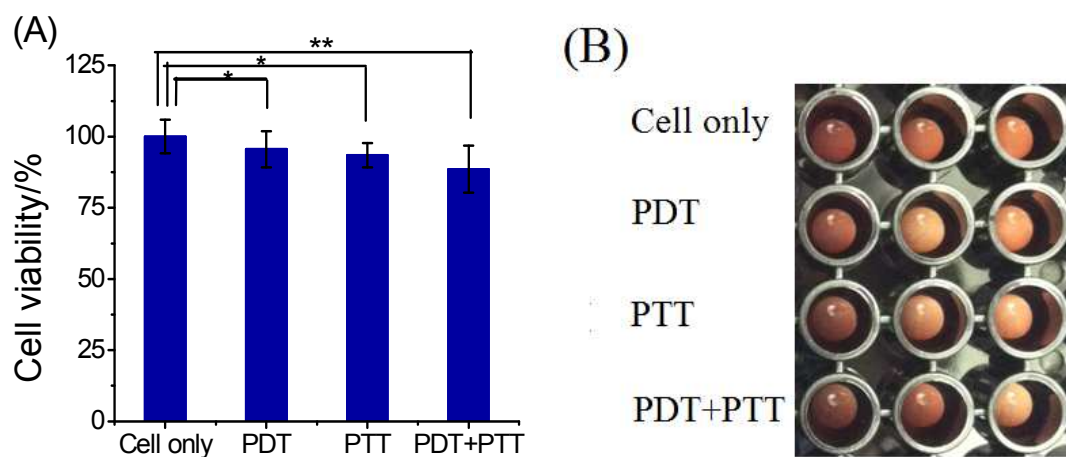
**Figure S1** The chemical structure of Ce6



**Figure S2** Fluorescence of SOSG for Ce6-labeled ASP and ASP-NR conjugates.



**Figure S3** The fluorescence change with increasing temperature.



**Figure S4.** Cell viability data (A) and imaging (B) of Ramos cells incubated with Ce6-ASP-T<sub>32</sub>-NRs without light irradiation (cells only), under white light irradiation (PDT), under laser irradiation (PTT), and combined PDT+PTT, respectively. Cells, 200k/sample; probes, 0.2nM. P values were calculated by the Student's *t*-test: \**p*<0.05, \*\**p*<0.001, \*\*\**p* < 0.0001, *n*=3.