

A self-monitored fluorescence DNA anti-counterfeiting system based on silica coated SYBR Green I/DNA gelatin nanoparticles

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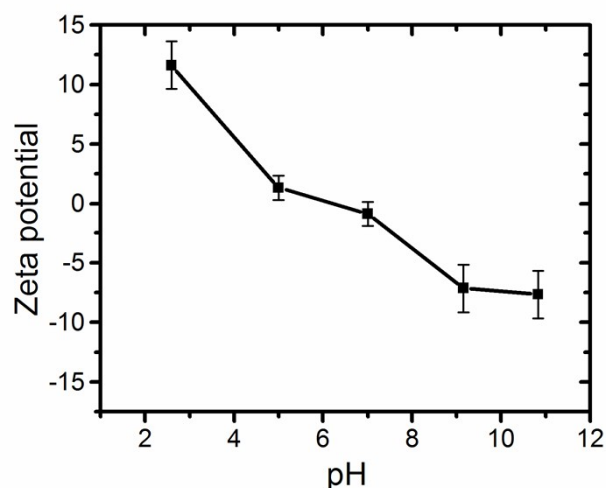


Figure S1. The zeta potential of the gelatin under different pH.



Figure S2. The SSDG NPs and SG loaded gelatin NPs with DNA after 72 hours dialysis in pure water.

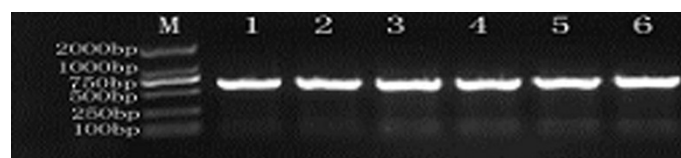


Figure S3. The agarose gel electrophoresis photo of the DNA fragment (720 bp) amplified from calf thymus DNA

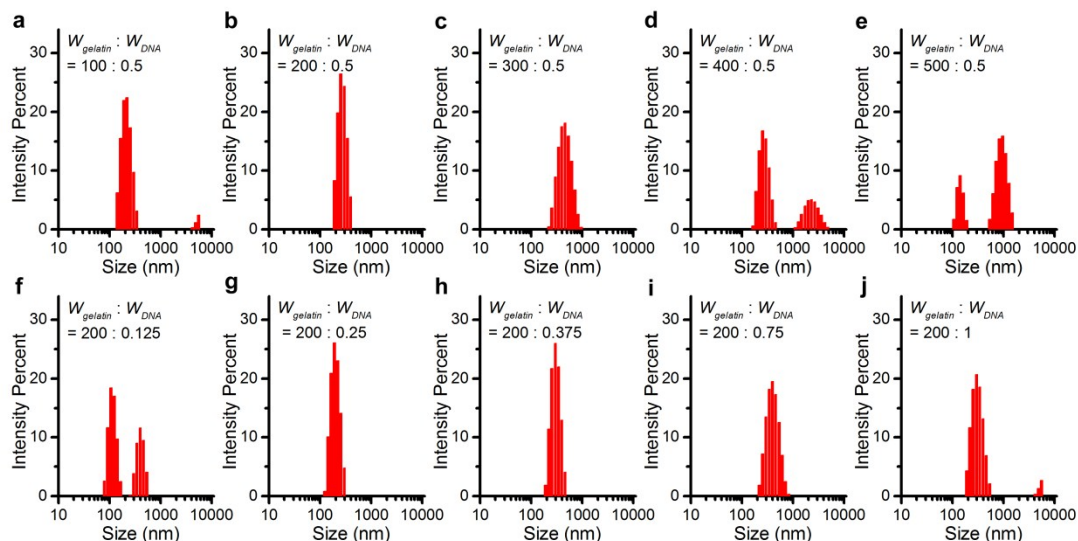


Figure S4. Preparation of DG NPs. (a)-(e) The size distribution of DG NPs prepared by different gelatin contents from 100 to 500 mg with the amount of DNA being fixed to 0.5 mg. (f)-(j) The size distribution of DG NPs prepared by different DNA contents from 0.125 to 500 mg with 200 mg of gelatin.

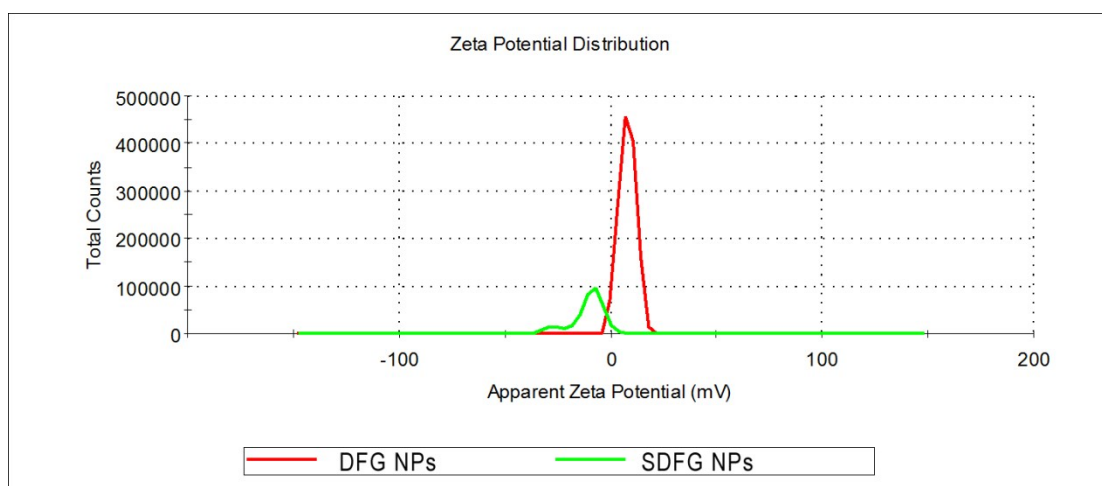


Figure S5. The zeta potential distribution of SDG NPs and SSDG NPs under neutral condition.

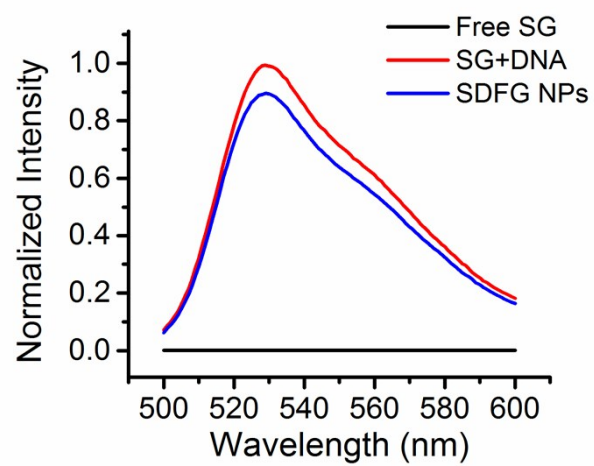


Figure S6. Fluorescence spectra of free SG, DNA complexed SG and SSDG NPs.

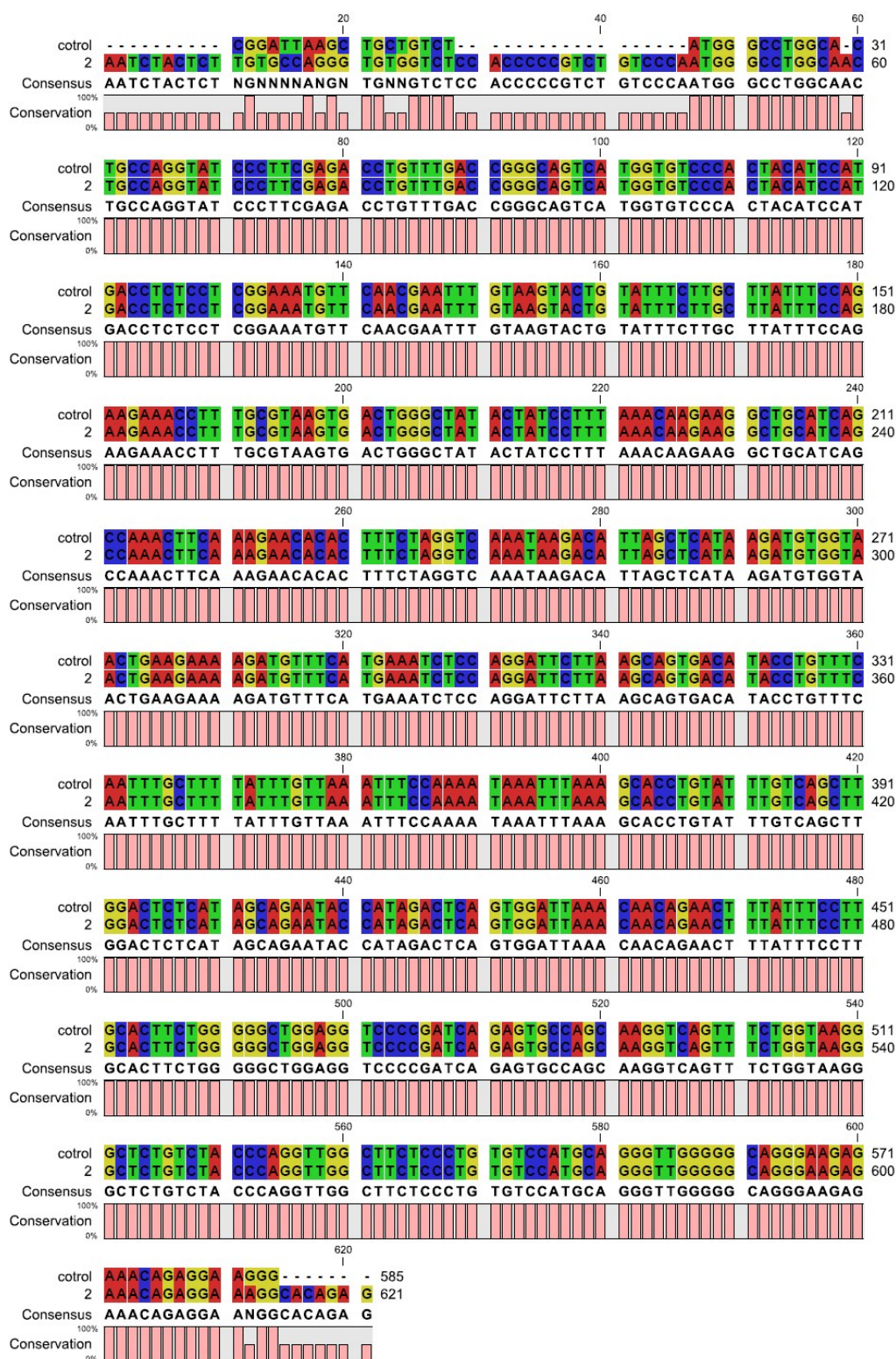


Figure S7. The DNA sequence alignment between the DNA in SSDG NPs after one year storage and the original sequence.