Supplementary Data:

Cascaded Electrochemiluminescence Signal-Amplifier for Detection of Telomerase Activity from Tumor Cells and Tissues

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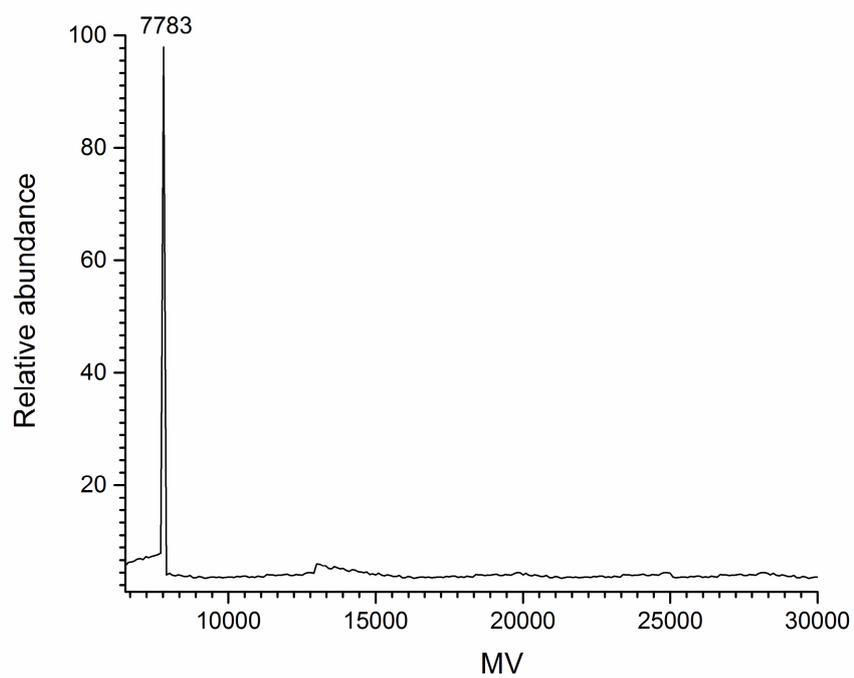
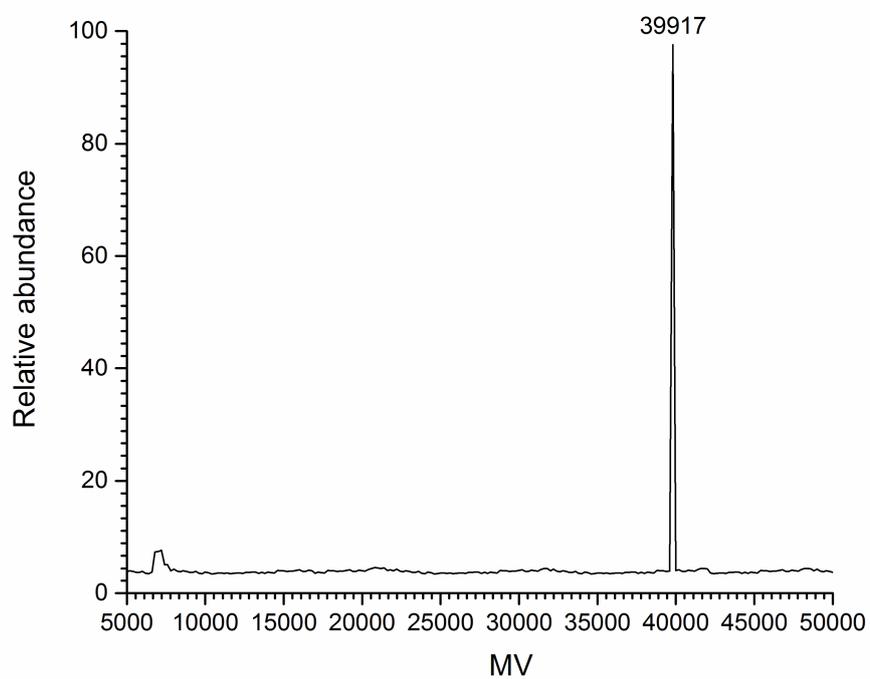Figure S1. MS data for DPR with the polymerization degree of 10.

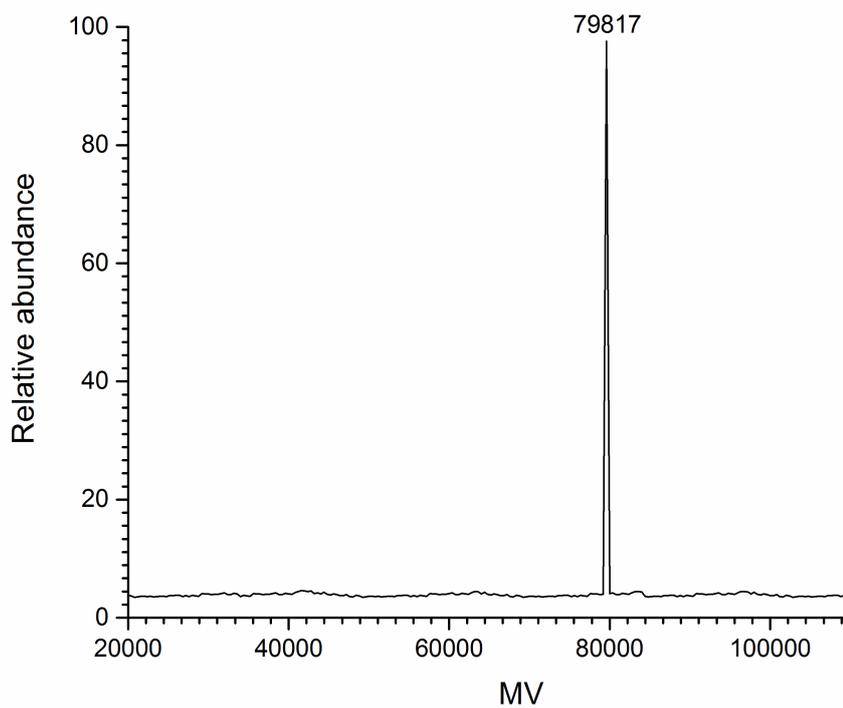Figure S2. MS data for DPR with the polymerization degree of 50.

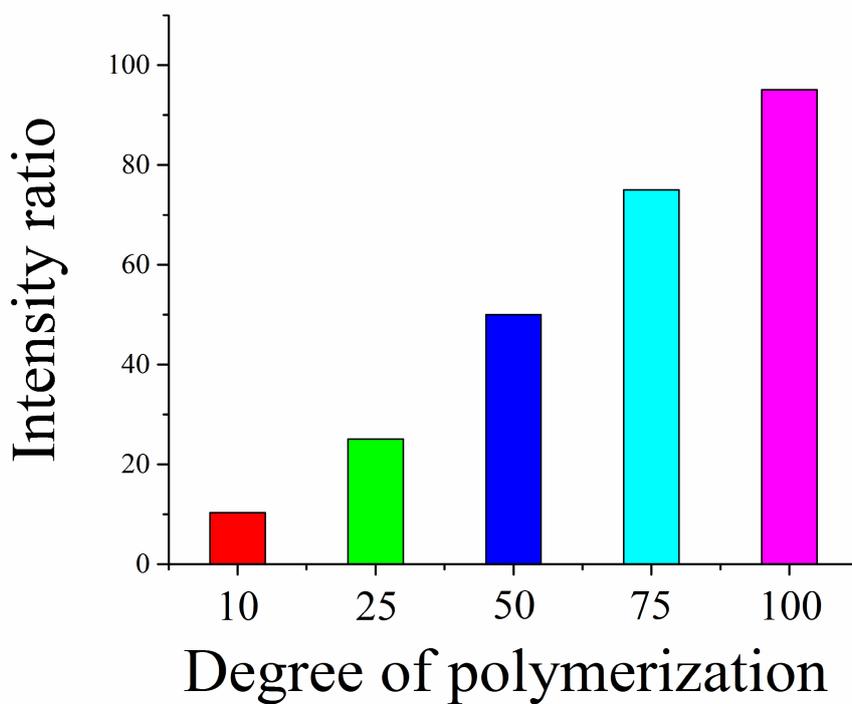Figure S3. MS data for DPR with the polymerization degree of 100.

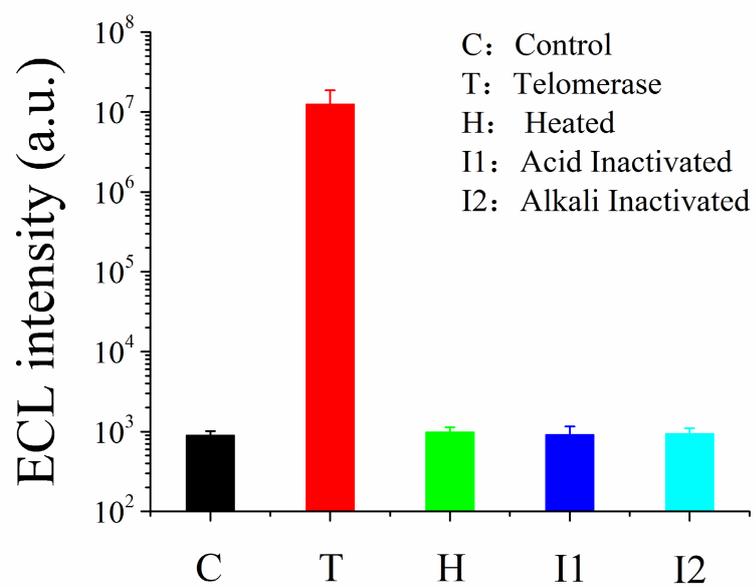Figure S4. Intensity Ratio between the Single ECL Luminophor and the Polymer

Probe.

Figure S5. ECL Intensity of Heated and Inactivated Telomerase Samples.

Table S1. Comparison between Cascaded ECL Signal Amplifier and Existing Methods.

Note	Sensitivity	Specificity	Consume time	Cost
TRAP Assays[1, 2]	about 50 cells	primer-dimers and impurities lead to less-than-satisfactory specificity	Sample pretreatment: 60min Telomerase extension: 30min PCR amplification: 60-90min gel electrophoresis detection : 2-3h	About: 80 yuan RMB
Modified TRAP assays[3, 4]	2-10 cells	preferable specificity in tumor cells and tissues	Sample pretreatment: 60min Telomerase extension: 30min PCR amplification: 60-90min capturing and signal:2-180min	About: 80-100 yuan RMB
PCR Amplification-Free Detection Modes[5-8]	10-1000 cells	preferable specificity in tumor cells	Sample pretreatment: 60min Telomerase extension: 60-240min capturing and signal: 2-120min	About: 35-120 yuan RMB
Cascaded ECL Signal Amplifier	100, 50, 100 cells for A549, MCF7 and HepG2 cell lines	preferable specificity in tumor cells and tissues	sample and reagents pretreatment: 60min Telomerase extension: 30min capturing and signal: 30min	About: 35 yuan RMB

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