Electronic Supplementary Material (ESI) for Analyst.
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Supporting Information

Real-time in situ fluorescence imaging of telomerase and miR378 in living cells using two-color DNA tetrahedral nanoprobe combined with molecular beacons

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Table S1 Nucleic acid sequences.

Name	Sequences (5′-3′)
L1	ACATTCCTAAGTCTGAAACATTACAGCTTGCTACACGA GAAGAGCCGCCATAGTATTTTGAGGTAAGGACTGC
L2-1	TATCACCAGGCAGTTGACAGTGTAGCAAGCTGTAATTT TT-Cy3
L2-2	BBQ-650- TTTTAAGAATAACCCTAACCCTAACCCTAACCC
L3	TCAACTGCCTGGTGATAAAACGACACtACgTGGGAATCT ACTATGGCGGCTCTTCTTTTAATCCGTCGAGCAGAGTT
L4	TCGCGATAGCAGGAATGTGCTTCCCACGTAGTGTCGTTT GGGTTAGGGTTATTCTTCATTCAGACTTGCTATCGCGA
MB	FAM-CACCGATATACCTTCTGACTCCAAGTCCCGGTG /iBHQ1dT/GCAG TCCTTACCTC
miR378	ACUGGACUUGGAGUCAGAAGG
mis1	ACUGGACUUGGAGUGAGAAGG
mis2	ACUGGACAUGGAGUCACAAGG
mis3	ACUGGACAUGGUGUCACAAGG
NC	UUGUACUACAAAAGUACUG
miR21	UAGCUUAUCAGACUGAUGUUGA
miR155	UUAAUGCUAAUCGUGAUAGGGGU

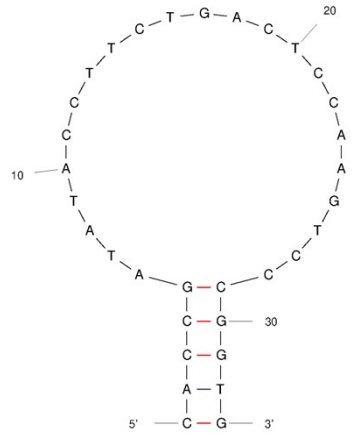

Fig.S1 Secondary structure of the most suitable MB was simulated using mFold online software;
Sequence: CACCGATATACCTTCTGACTCCAAGTCCCGGTG (ΔG = -2.20)

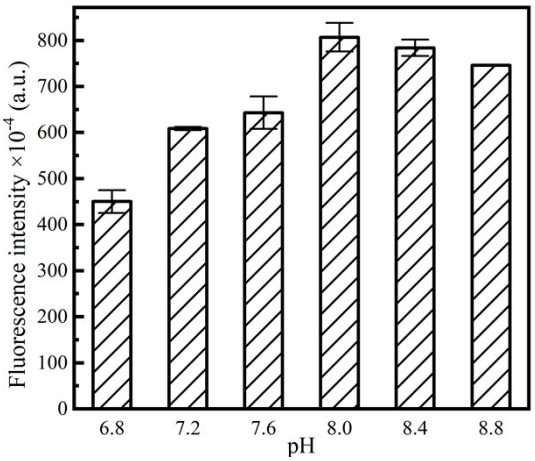

Fig.S2 Comparing fluorescence differences at different pH levels

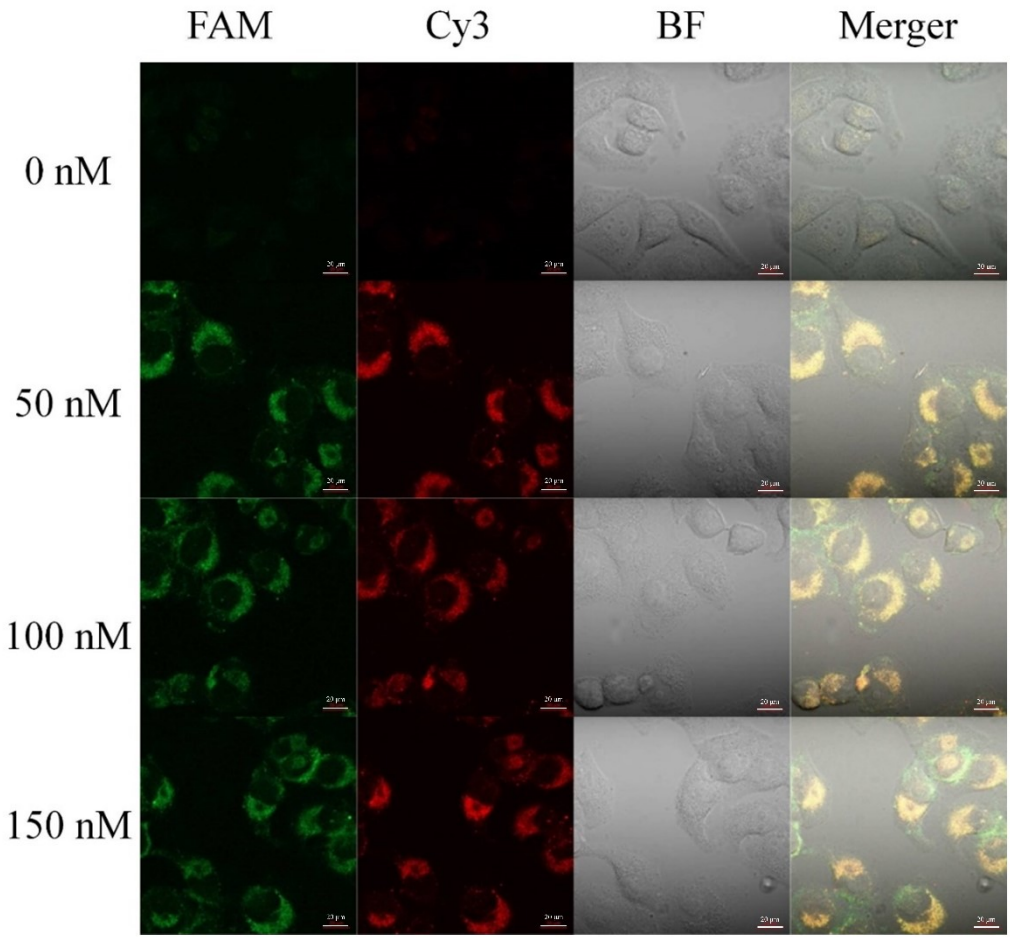

Fig.S3 Confocal fluorescence images of different DTP concentrations incubated with HeLa cells for 9 h; scale: 20 μm

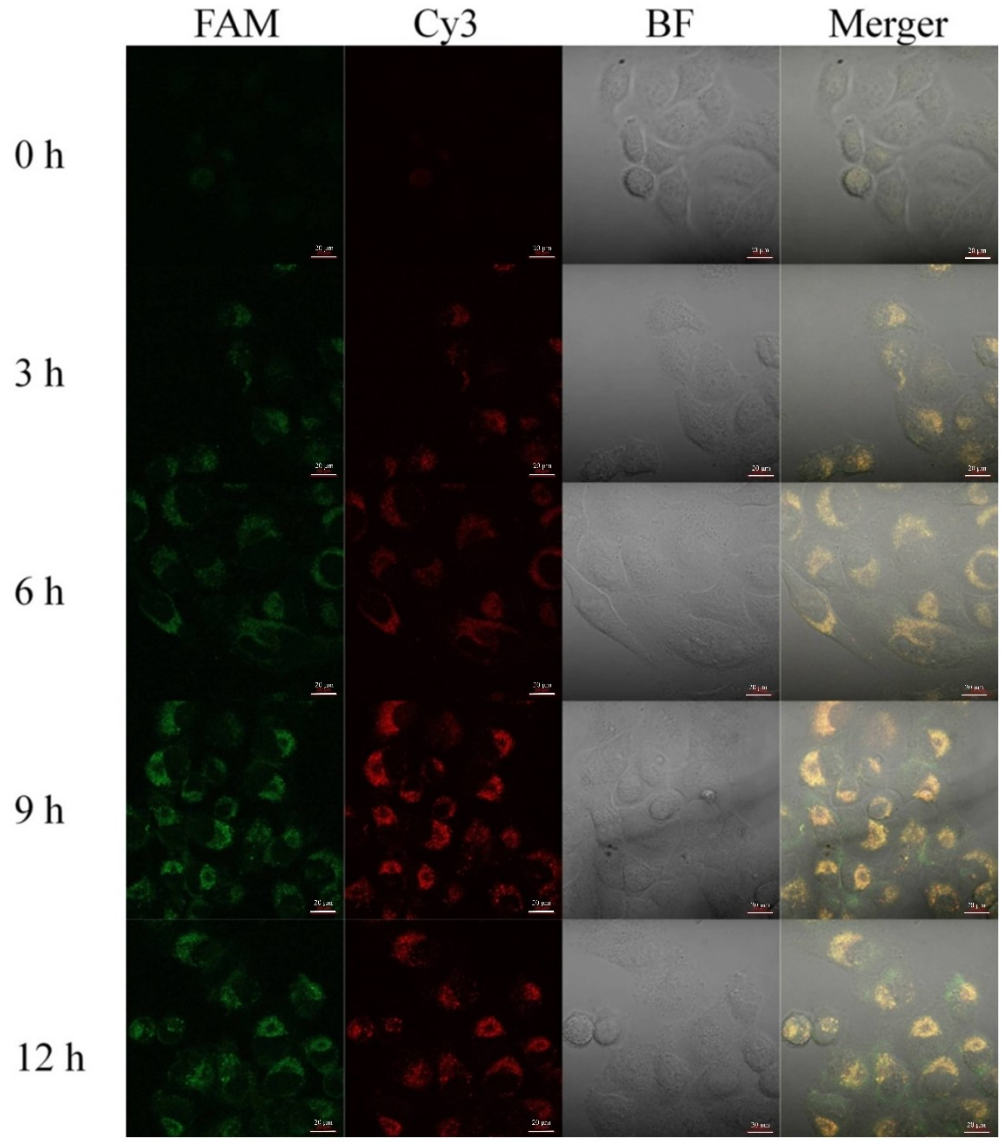

Fig.S4 Confocal fluorescence images of MB–DNA tetrahedral probe incubated with HeLa cells for different durations; scale: 20 μM