

A colorimetric biosensor for ultrasensitive detection of *SURF1* gene based on dual DNA-induced cascade hybridization reaction

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Table S1. The DNA sequences employed in the present work.

NAME	SEQUENCE (5'-3')
TARGET	GCCCGCGGGGCCGGGTGCGATGGCGGCGGTGGCTGCGTTG
CP	BIOTIN-TTTTTTGTACGCACGTTAGATCGCACCCGG
CP-1	SH-TTTTTTGTACGCACGTTAGATCGCACCCGG
S1	ACCGCCGCCATCTAACGTGC
P1	CCCCGCGGGCCGATTAGCGTTAGA AGGCGC-DIGOXIN
P2	ACGCTA ATCGGCGCCTTCTA-DIGOXIN

P3 ATGACTGACGATTGCATCGCCAACGCAGCC-DIGOXIN

P4 CGTCAGTCATGCGATGCAAT-DIGOXIN

SM

GCCCGCGGGGCCGGCTGCGATGGCGGCGGTGGCTGCGTTG

DM

GCCCGCGGGGCCGGCTGCGATGGCGGCGGTGGCTGCGTTG

NM

CAAGTACCCATCTTTACGATACCTCCAAACTTGATGTAGT

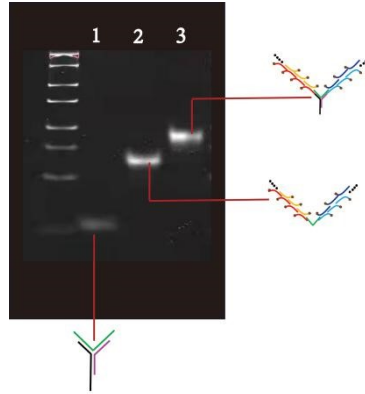


Figure S1. The Gel electrophoresis analyses ($1.0 \times 10^{-6} \text{M}$): (1) “Y” structure (capture probe, target SURF1 gene fragment, auxiliary probe S1), (2) dual DNA-induced cascade hybridization reaction (target SURF1 gene fragment, P1-P4 probes), (3) “Y” structure and dual DNA-induced cascade hybridization reaction (capture probe, target SURF1 gene fragment, auxiliary probe S1 and P1-P4 probes)

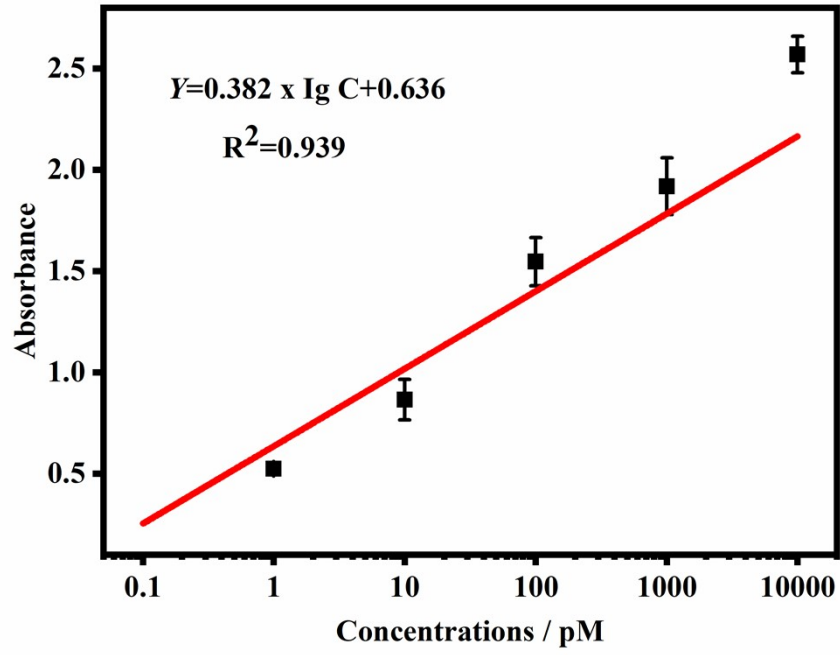


Figure S2. Linear correlation between the absorbance response and the logarithm of *SURF1* gene fragment concentration in the range of 1 pM-10 nM without DNA-induced cascade hybridization reaction.