Supporting information

Sensitive fluorescence assay of chloramphenicol coupled with two-level isothermal amplification using self-powered catalyzed hairpin assembly and entropy driven circuit

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Table S1. The sequences of used oligonucleotides in this work

Note	Sequence (5' to 3')
H1	GACCATGA-AAGT-GCTG-AACAGT-ACTT-GCTTAG-CAGC-ACTTCAGTGAGTTGTCCCACGGTCGGCGAGTCGGTGGTAGA
H2	ACTT-GCTTAG-AGTCATGAAAAA-CTAAGC-AAGT-ACTGTT
H3	AGTCATGAAAAA-ACTT-GCTTAG-TTTTTCATGACT-CTAAGC-TCATGGTC
F	CCTACGTCTCCAAG-CCCT-AGTCATGAAAAA
A	FAM-CCTACGTCTCCAAG
B	CCCCCCCCCCC-CCCT-AGTCATGA
C	AACAGT-TTTTTCATGACT-AGGG-CTTGGAGACGTAGG-Dabcyl

Table S2. Comparisons with other aptamer based strategy for CAP detection

Target	Strategy	Linear range	LOD	Ref
CAP	Colorimetry+aptamer（without amplification）	1 – 120 nM	0.451 nM	[1]
CAP	Electrochemistry+aptamer（without amplification）	1.76 – 127 nM	1.76 nM	[2]
CAP	Fluorescence + aptamer (without amplification)	0.1 – 10 nM	98 pM	[3]
CAP	Entropy driven catalytic reaction + Dumbbell hairpin	20 – 4000 pM	6 pM	[4]
CAP	Fluorescence + aptamer + hybridization chain reaction amplification	15.47 pM - 4.641 nM（5 pg·mL^{-1} to 1.5 ng·mL^{-1}）	3.713 pM (1.2 pg·mL^{-1})	[5]
CAP	Colorimetry + aptamer + polymeric HRP-antibody amplification	0.031 nM - 309.4 nM（0.01 - 100 ng mL^{-1}）	9.283 pM (3 pg ·mL^{-1})	[6]
CAP	Colorimetry + aptamer + catalyzed hairpin assembly + hybridization chain reaction amplification	0.1 fM - 0.01 nM	11.6 aM	[7]
CAP	**Fluorescence + aptamer + catalyzed hairpin assembly + Entropy driven catalytic reaction**	**0.4 - 50 pM**	**0.1 pM**	**This method**

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