

Supplementary Information (SI)

Combined Detection of Hepatitis B Virus Surface Antigen and Hepatitis B Virus DNA using DNA sensor

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Material

The oligonucleotides were ordered from Shanghai Sangon Co., Ltd. (Shanghai, China). ThT was supplied by J&K Scientific Co., Ltd. (Beijing, China). Water (18.2 M) was supplied from an ultrapure water system. The sequences of the oligonucleotides were listed in **Table S1**.

Table S1. Nucleic acid sequence used in the experiment^a

Oligomer	Sequence (5'-3')
HBV aptamer	GGGAATTCGAGCTCGGTACCCACAGCGAACAGCGGCG GACATAATAGTGCTTACTACGACCTGCAGGCATGCAAG CTTGG
TAMRA-modified DNA (T-DNA)	TAMRA-CACCGCTGTTACTAGTAACATATCAA
BHQ2-modified DNA (B-DNA)	GGCATGCAAGCTTGGTAACAGCG-BHQ2
Locker (L)	TAAGATTAATCCTGTTTGATATGTTACTAGTAACAGCGC TGTTACCAAGCTTGCATGCCTGCAGGTCGTAGTA TTGGGTATAAAGACTGGTAAATTGCTCATCCATGC
S1	CTAGACTGGCGATAAGTAGCCAGC
S2	CTGCTGATTATTCTAGCTCAGCAAGCGTTATGCGT CTAGGCATGGATGAGC
S3	AATTTACCAGTCTTTATACCCAAGCTCTGGTATGC ATGTCGGCATAACGCTTGCTGAGC
S4	ACAGGATTAATCTTAGCTGGCTACTTATCGCCACG ACATGCATACCAGAGC
Ha	TAGAATAATCAGCAGTACCACCCATTAATGTGCTCCCC CAACTCCTCTAAGTCACATTAATGGGTGGGTGGGTGGG
Hb	TAAGATTAATCCTGTTTAATGTGACTTAGAGGAGTTGG GGGAGCACATTAATGGCCCCAACTCCTCTAAGT
HBV DNA	GAGGAGTTGGGGGAGCACATT
Double-base mismatch (DM)	GAGGAGTTG <u>C</u> GGGAGC <u>T</u> CATT
Three-base mismatch (TM)	GAC <u>G</u> AGTTG <u>C</u> GGGAGC <u>T</u> CATT
Non-complementary (NC)	AAAAGGTGTAAGCGTTTGCCG

^a Bases underlined in the table indicate mismatched bases