Electronic Supplementary Material (ESI) for Analyst.
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Supporting Information

Multiplex detection of quality indicator molecules targets in urine using programmable hairpin probes based on a simple double-T type microchip electrophoresis platform and isothermal polymerase-catalyzed target recycle

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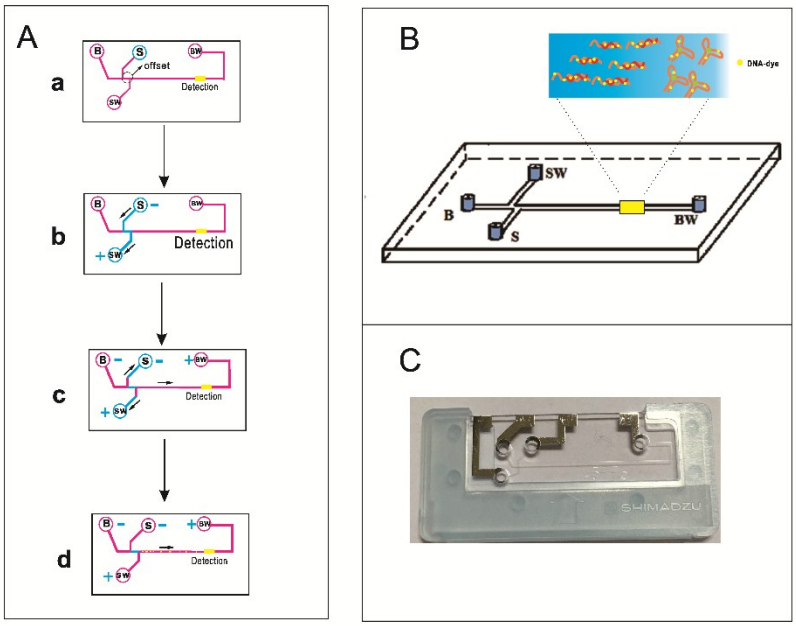
TableS1. Sequence oligonucleotides used in this strategy

Name	Sequence (5'—3')
PHP-AMP	TCGGCTTAGCTCGGCTTAGCTCGGCTTAGCTTTT**GC GGGCGGTTGTATAGCGG**TTTTTTTTTTACAACCGC CCGC
PHP-ATP	TTTTTTTTTT**ACCTGGGGGAGTATTGCGGAGGAAG GT**TTTTTCAATACTCCCCCA
PHP-E2	**ATACGAGCTTGTTCAATACGAAGGGATGCCGTTT GGGCCCAAGTTCGGCATAGTGTGGTGATAGTAA GAGCAATC**TTTTTCACCACACTATG
Primer-AMP	GCGGGCGGTT
Primer-ATP	TGGGGGAGTA
Primer-E2	CATAGTGTGG

Note: The bold sequences were the targets' aptamer nucleotides. The underline sequences in PHP represent the sequence complementary to each other to form the hairpin structure

TableS2. Voltage program applied for sample injection and MCE separation.

Procedure	Time(s)	Voltage applied into the reservoirs (V)			
		S	B	SW	BW
sample injection	50	280	320	510	0
MCE separation	185	250	0	250	1000



FigS1 (A) Illustration of sample analysis procedures based on the commercial MCE system : (a) a chip preparation. (b) sample loading phase; (c)sample injection phase; (d)sample separation. (B) The diagram of separated species being detected in the by MCE system. (C) The image of microchip for analysis. S (sample); SW (sample waste); B (separation buffer); BW (buffer waste).