Electronic Supplementary Material (ESI) for Lab on a Chip.

Supplementary information

Test strip coupled Cas12a-assisted signal amplification strategy for sensitive detection of uracil-DNA glycosylase

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Cas12a	+	+	+	+	+	+	+
crRNA	-	+	+	+	+	+	+
Endo IV	-	-	+	+	+	+	+
NT.B+Bst	-	-	-	+	+	+	+
UDG	-	-	-	-	+	-	+
UDG in bovine serum	-	-	-	-	-	+	-
UDG+UGI	-	-	-	-	-	+	+

Figure S1. Test paper assay of different component products. The reaction system in the table is 200 nM Cas12a, 120 nM crRNA, 0.01 U/ml UDG, 0.1 U/ml UGI, 10 U Endo IV, 500 nM dNTPs, 1 U DNA polymerase, 5 U NtBstNBI, 700 nM test paper assay probe, 2 mL of 10× NEBuffer, 2 mL of 10× ThermoPol buffer 2 μL, and 10× NEBuffer 3. Once the reaction was completed, 50 μL of water was added and the end of the test strip bonding pad was inserted into the PCR reaction tube, ensuring that the liquid level did not exceed the top of the bonding pad.

Table S1. The table highlights the parts that are mismatched, namely uracil, UDG1, and UDG2, which are q-PCR primers.

Name	Sequences
DNA substrate	TAAC ACT GTC TGG TUA ATGA TG AAT AAC TCT ACT ATC TCT TGA CTC TTA TCT TAA CCA GAC AGT GTT A
Template	TGA TGA ATA ACT CTA CTA TCT CTT GAC CTC TGA ATA ACTCTA CTA TC
Signal probe	FAM-TTTN-BHQ1
crRNA	UAAUUUUCUACUAAGUGUAGAUUGAAUAACUCUACUAUC
Test paper probe	FAM-TTTN-Biotin
UDG1	GATTTGCCTGAGCCTACATT
UDG2	CACAGCAGGGACTCCTAGAA