

Table S1 Relationship between the quantitative and semi-quantitative parameters

Parameter	Semi-quantitative assessment categories					
	-	±	1+	2+	3+	4+
Red blood cells, cells/ μ L	0–10	1–20	20–50	50–140	>140	–
Leukocyte esterase, cells/ μ L	0–20	20–40	40–100	100–300	>300	–
Protein, mg/dL	0–10	10–22.5	22.5–75	75–200	>200	–
Glucose, mg/dL	0–50	50–75	75–175	175–375	375–750	>750

Note: -, \pm , 1+, 2+, 3+, 4+, conversion relationships between quantitative and semi-quantitative results for each parameter.

Table S2 Inter-day precision for the negative controls

Parameter	Control limits	Inter-day precision	
		General consistency (100%)	Full consistency (100%)
LEU	–	80/80 (100%)	80/80 (100%)
URO	Norm	80/80 (100%)	80/80 (100%)
PRO	–	80/80 (100%)	80/80 (100%)
BIL	–	80/80 (100%)	80/80 (100%)
GLU	–	80/80 (100%)	80/80 (100%)
VC	–	80/80 (100%)	80/80 (100%)
SG	1.005	80/80 (100%)	80/80 (100%)
KET	–	80/80 (100%)	80/80 (100%)
NIT	–	80/80 (100%)	80/80 (100%)
pH	5.0	80/80 (100%)	80/80 (100%)
BLD	–	80/80 (100%)	80/80 (100%)

LEU, leukocyte; URO, urobilinogen; PRO, protein; BIL, bilirubin; GLU, glucose; VC, vitamin C; SG, specific gravity; KET, ketone bodies; NIT, nitrite; BLD, blood.

Table S3 Inter-day precision for the positive controls

Parameter	Control limits	Inter-day precision	
		General consistency (100%)	Full consistency (100%)
LEU	3+	76/80 (95%)	80/80 (100%)
URO	Norm	80/80 (100%)	80/80 (100%)
PRO	2+	80/80 (100%)	80/80 (100%)
BIL	3+	77/80 (96.25%)	80/80 (100%)
GLU	3+	80/80 (100%)	80/80 (100%)
VC	2+	50/80 (62.5%)	80/80 (100%)
SG	1.025	76/80 (95%)	80/80 (100%)
KET	2+	55/80 (68.75%)	80/80 (100%)
NIT	+	80/80 (100%)	80/80 (100%)
pH	6.0	80/80 (100%)	80/80 (100%)
BLD	3+	80/80 (100%)	80/80 (100%)

LEU, leukocyte; URO, urobilinogen; PRO, protein; BIL, bilirubin; GLU, glucose; VC, vitamin C; SG, specific gravity; KET, ketone bodies; NIT, nitrite; BLD, blood.

Table S4 Carry-over contamination rate

Test items	BLD		LEU		GLU		PRO		URO		BIL		KET		VC		NIT	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Sample 1	3+	-	3+	-	4+	-	3+	-	3+	-	3+	-	/	/	3+	-	/	/
Sample 2	3+	-	3+	-	/	/	3+	-	3+	-	/	/	/	/	3+	-	/	/
Sample 3	3+	-	3+	-	/	/	3+	-	3+	-	/	/	/	/	3+	-	/	/

LEU, leukocyte; URO, urobilinogen; PRO, protein; BIL, bilirubin; GLU, glucose; VC, vitamin C; KET, ketone bodies; NIT, nitrite; BLD, blood.