

SUPPLEMENTARY TABLE 1. System validation

Antibiotic	y = mx + b	Determination coefficient R ²	% RSD Response factors	LOD	LOQ
				µg mL ⁻¹	µg mL ⁻¹
AMOXI	y = 2.64x+0.467	0.990	5.3	0.048	0.160
TMP	y = 23.29x+0.642	0.997	2.2	0.025	0.080
OXI	y = 35.30x-1.799	0.990	4.8	0.163	0.480
TETRA	y = 27.38x-0.913	0.997	2.8	0.012	0.040
SMX	y = 67.11x+0.320	0.997	1.9	0.006	0.020
SDX	y = 69.03x+1.465	0.999	1.2	0.151	0.500
DOX	y = 11.50x-0.881	0.997	3.0	0.225	0.750
TYL	y = 22.25x+2.972	0.997	3.6	0.145	0.480
CIPRO	y = 90.95x-1.947	0.997	6.7	0.014	0.047
ENRO	y = 88.55x-0.752	0.990	5.0	0.014	0.051
*Inclusion criteria (AOAC).		>0.98	<15%		

SUPPLEMENTARY TABLE 2. Intraday and intermediate precision.

Antibiotic	Intraday * %RSD			Intermediate *%RSD		
	Concentration levels					
	low	medium	high	low	medium	high
AMOXI	4.0	4.9	1.1	7.2	1.6	5.9
TMP	0.9	1.7	0.7	3.7	2.2	2.0
OXI	4.5	4.0	2.3	5.0	1.8	1.8
TETRA	4.7	2.3	1.6	0.9	1.9	0.2
SMX	0.5	0.4	0.6	8.7	3.3	2.8
SDX	1.2	0.2	1.8	5.5	2.3	1.0
DOX	5.0	2.6	1.3	8.0	1.0	1.0
TYL	5.7	1.1	0.3	4.8	4.5	1.8
CIPRO	0.4	0.3	0.1	14.0	11.0	14.0
ENRO	4.9	3.6	2.8	1.4	2.4	8.0
INCLUSION CRITERIA (AOAC)		%RSD < 15%				

SUPPLEMENTARY TABLE 3. Chromatographic parameters

Chromatographic columns												
Atlantis T ₃					Luna C ₁₈				Synergi C ₁₈			
	Antibiotic	α	R	N	Antibiotic	α	R	N	Antibiotic	α	R	N
1	AMOXI	5.8	14.1	841	AMOXI	11.7	9.0	1447	AMOXI	3.7	8.5	2472
2	TMP	1.1	1.6	4260	TMP	1.2	1.3	2055	TMP	1.1	1.2	3202
3	OXI	1.1	1.1	4619	OXI	1.1	0.5	554	OXI	1.3	3.1	4077
4	CIPRO	1.1	1.4	11463	CIPRO	1.2	1.2	7205	CIPRO	1.1	0.9	5730
5	ENRO	1.1	1.4	7539	ENRO	1.1	1.2	4650	TETRA	1.1	1.4	10028
6	TETRA	1.2	3.0	4477	TETRA	1.2	1.8	4601	NOR	1.1	2.1	*
7	NOR	1.0	1.0	*	NOR	1.3	3.9	*	SMX	1.1	1.7	7755
8	SMX	1.5	11.2	9530	SMX	1.5	13.1	8709	ENRO	1.3	6.0	6902
9	SDX	1.0	1.2	40552	DOXI	1.0	0.8	51087	SDX	1.0	0.6	9192
10	DOXI	1.2	9.4	129448	SDX	1.2	7.0	27090	DOXI	1.2	8.8	19271
11	TYL			42749	TYL			52097	TYL			

*not available

SUPPLEMENTARY TABLE 4. Plackett-Burman design

Experiment	pH	Sample flow rate (mL/min)	Elution solvent	Elution flow (mL/min)	Elution volume (mL)	Rinse	Vaccum drying period of the sorbent (min)	Response (chromatographic peaks)
1	5	10	MeOH	5	3	H ₂ O:MeOH (9:1)	1	7
2	5	10	ATF:ACN	5	1	H ₂ O	0.5	2
3	5	3	MeOH	1	3	H ₂ O	0.5	7
4	5	3	ATF:ACN	1	1	H ₂ O:MeOH (9:1)	1	2
5	3	10	MeOH	1	1	H ₂ O:MeOH (9:1)	0.5	5
6	3	10	ATF:ACN	1	3	H ₂ O	1	11
7	3	3	MeOH	5	1	H ₂ O	1	4
8	3	3	ATF:ACN	5	3	H ₂ O:MeOH (9:1)	0.5	11