

Table S1. Fragmentation conditions for the target compounds

Analyte	Chemical formula	Relative retention time (min)	Precursor ion (m/z)	Product ion		Collision energy (eV)		Internal standard used
				Quantifier	Confirmation	Quantifier	Confirmation	
Sulfacetamide SAA	C ₈ H ₁₀ N ₂ O ₃ S	1.9	215	156	108	10	15	SMT- ¹³ C ₆
Sulfaguanidine SGD	C ₇ H ₁₀ N ₄ O ₂ S	1.9	215	156	92	10	22	SMT- ¹³ C ₆
Sulfanilamide SAM	C ₆ H ₈ N ₂ O ₂ S	2.4	173	156	93	10	15	SMT- ¹³ C ₆
Sulfisomidine SSD	C ₁₂ H ₁₄ N ₄ O ₂ S	3.3	279	186	124	15	20	SMT- ¹³ C ₆
Sulfadiazine SDZ	C ₁₀ H ₁₀ N ₄ O ₂ S	4.8	251	108	156	20	15	SMT- ¹³ C ₆
Sulfathiazole STZ	C ₉ H ₉ N ₃ O ₂ S ₂	5.5	256	156	92	15	25	SMT- ¹³ C ₆
Sulfapyridine SPD	C ₅ H ₅ N	5.6	250	108	156	25	15	SMT- ¹³ C ₆
Sulfamerazine SMR	C ₁₁ H ₁₂ N ₄ O ₂ S	6.2	265	172	156	15	15	SMT- ¹³ C ₆
Sulfamethazine SMT	C ₁₂ H ₁₄ N ₄ O ₂ S	7.3	279	124	186	20	15	SMT- ¹³ C ₆
Sulfamethizole SFZ	C ₉ H ₁₀ N ₄ O ₂ S ₂	7.7	271	92	156	25	10	SMT- ¹³ C ₆
Sulfamethoxypyridazine SMP	C ₁₁ H ₁₂ N ₄ O ₃ S	7.8	281	92	156	25	15	SMT- ¹³ C ₆
Sulfamonomethoxine SMM	C ₁₁ H ₁₁ N ₄ NaO ₃ S	7.9	281	126	156	20	15	SMT- ¹³ C ₆
Sulfamer SME	C ₁₁ H ₁₂ N ₄ O ₃ S	7.9	281	92	156	25	20	SMT- ¹³ C ₆
Sulfachloropyridazine	C ₁₀ H ₉ ClN ₄ O ₂ S	9.7	285	156	108	15	20	SMZ- ¹³ C ₆
Sulfadoxine SDX	C ₁₂ H ₁₄ N ₄ O ₄ S	10.3	311	108	156	25	15	SMZ- ¹³ C ₆
Sulfamethoxazole SMZ	C ₁₀ H ₁₁ N ₃ O ₃ S	10.7	254	92	156	25	15	SMZ- ¹³ C ₆
Sulfisoxazole SSX	C ₁₁ H ₁₃ N ₃ O ₃ S	11.5	268	113	156	15	10	SMZ- ¹³ C ₆
Sulfabenzamide SBZ	C ₁₃ H ₁₂ N ₂ O ₃ S	12.7	277	92	156	15	15	SMZ- ¹³ C ₆
Sulfadimethoxine SDM	C ₁₂ H ₁₄ N ₄ O ₄ S	13.1	311	108	156	25	18	SMZ- ¹³ C ₆
Sulfaquinoxaline SQX	C ₁₄ H ₁₂ N ₄ O ₂ S	13.2	301	92	156	25	15	SMZ- ¹³ C ₆
Sulfaphenazole SPZ	C ₁₅ H ₁₄ N ₄ O ₂ S	13.55	315	108	159	25	20	SMZ- ¹³ C ₆
Sulfantran SNT	C ₁₄ H ₁₃ N ₃ O ₅ S	16.4	336	134	156	25	10	SMZ- ¹³ C ₆
Dapsone DDS	C ₁₂ H ₁₂ N ₂ O ₂ S	9.4	249.2	92.1	156	22	10	SMZ- ¹³ C ₆
Trimethoprim TMP	C ₁₄ H ₁₈ N ₄ O ₃	4.5	291	123	230	22	20	SMT- ¹³ C ₆
Sulfametazine- ¹³ C ₆ SMT- ¹³ C ₆ (internal standard)	¹³ C ₆ C ₆ H ₁₄ N ₄ O ₂ S	7.3	285	186	-	15	-	-
Sulfamethoxazole- ¹³ C ₆ SMZ- ¹³ C ₆ (internal standard)	¹³ C ₆ C ₄ H ₁₁ N ₃ O ₃ S	10.7	260	162	-	15	-	-