

Supplementary Information

Determination of Antibiotics Residues in Milk Using a QuEChERS Method Using Full Factorial Design and Liquid Chromatography-Tandem Mass Spectrometry

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Table S1. Coded experimental design and area of chromatograms for CEFT, CLOX and ENRO extracted from spiked milk using a modified QuEChERS

Run number ^a	Coded values of the independent variables			Real values of the independent variables			Response ^b		
	C18	PSA	NaAc	C18	PSA	NaAc	CEFT	CLOX	ENRO
1	-1	-1	-1	50	25	0.5	1032	2537	796
2	1	-1	-1	150	25	0.5	1003	2408	629
3	-1	1	-1	50	75	0.5	1019	2504	864
4	1	1	-1	150	75	0.5	1003	2403	636
5	-1	-1	1	50	25	1.5	788	1983	633
6	1	-1	1	150	25	1.5	792	1918	501
7	-1	1	1	50	75	1.5	762	1729	709
8	1	1	1	150	75	1.5	825	1823	491
9	0	0	0	100	50	1.0	992	2290	633
10	0	0	0	100	50	1.0	1024	2435	742
11	0	0	0	100	50	1.0	1023	2508	773
12	0	0	0	100	50	1.0	1019	2371	725
13	0	0	0	100	50	1.0	1009	2365	657
14	0	0	0	100	50	1.0	1048	2258	817

^aNo. of replicates = 3; ^bpeak area. C18: anhydrous octadecylsilane; PSA: primary secondary amine; NaAc: sodium acetate; CEFT: ceftiofur; CLOX: cloxacillin; ENRO: enrofloxacin.

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Table S2. Linearity achieved in each method for each antibiotic residue (AR) on three different days

Antibiotic residue	Regression equation	Determination coefficient (R^2)			
		Day 1	Day 2	Day 3	Three days
CEFT	$y = 119.04x + 68.616$	0.9998	0.9993	0.9998	0.9996
CLOX	$y = 71.544x + 190.87$	0.9940	0.9971	0.9884	0.9932
ENRO	$y = 77.028x - 458.28$	0.9712	0.9679	0.9712	0.9701

CEFT: ceftiofur; CLOX: cloxacillin; ENRO: enrofloxacin.