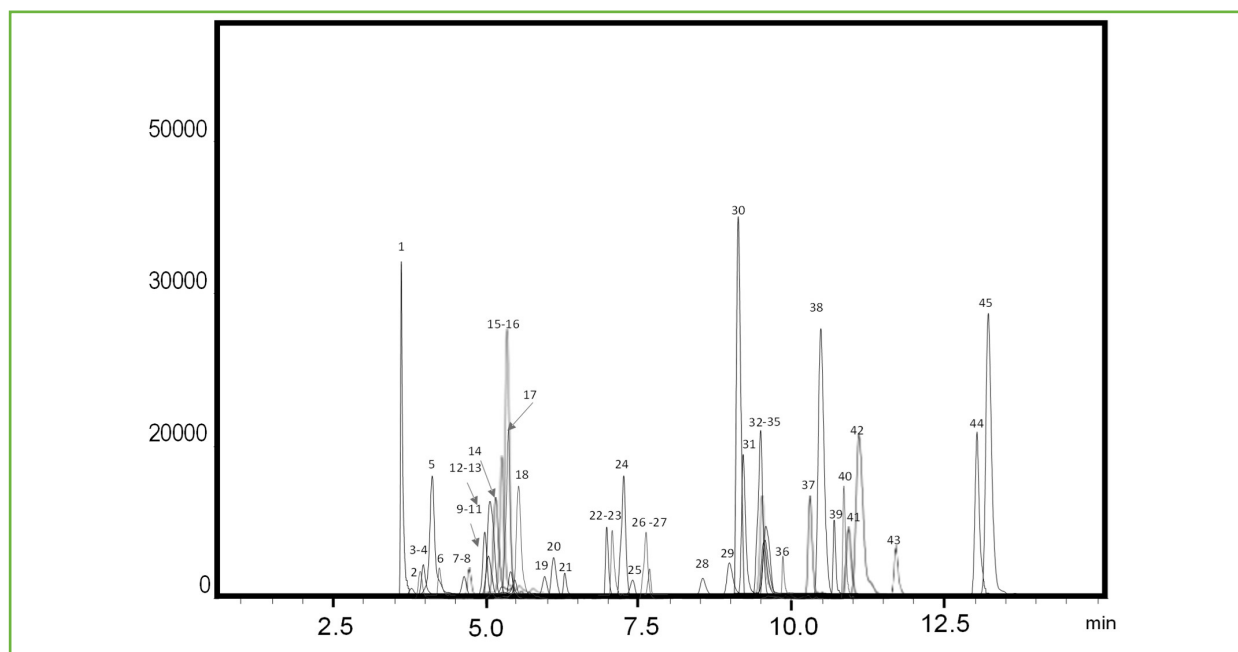




LC-MS Analysis of Veterinary Drugs using HALO® 1.5 C18



TEST CONDITIONS:

Analytical Column: HALO 90 Å C18, 2.7 μm , 1.5 x 100 mm

Part Number: 9281X-602

Tubing: AMT MarvelXACT™ PEEKsil™ 50 μm ID x 350 mm, 685 nL

Part Number: PS7050350

Mobile Phase A: Water, 0.1 % Formic Acid

Mobile Phase B: ACN, 0.1% Formic Acid

Gradient	Time	%B
	0	10
	14	100
	16	100
	16.10	10
	19.0	stop

Flow Rate: 0.2 mL/min

Pressure: 255 bar

Temperature: 35 °C

Injection Volume: 2.0 μL

Sample Solvent: 50/50/ MeOH/H₂O

Detection: +ESI MS/MS

LC System: Shimadzu Nexera X2

ESI LCMS system: Shimadzu LCMS-8040

MS Conditions:

ESI +

Spray Voltage: 3.0 kV

Nebulizing gas: 2 L/min

Drying gas: 15 L/min

DL temp: 250 °C

Heat Block: 400 °C

Veterinary drugs are a complex group of substances that can be differentiated into different chemical classes and therapeutic areas. These compounds can further be differentiated based on their classifications, such as macrolides, quinolones, sulfonamides, benzimidazoles, tricyclines, and NSAIDs. Here we present the HALO® 1.5 C18 for the separation and identification of a complex mix of veterinary drugs, including macrolides, quinolones, sulfonamides, benzimidazoles, tricyclines, NSAIDs and 4 dye species which have also been used for therapeutic purposes in veterinary medicine. The increased sensitivity and solvent savings offered by the HALO® 1.5 C18, provide the ultimate utility for complex sample analysis.





Peak id	Drug	Transition	Retention Time	Classification	Peak id	Drug	Transition	Retention Time	Classification
1	Ciprofloxacin	332.1000>314.1000	3.055	Quinolone	24	Albendazole Sulfoxide	282.1000>208.0000	7.137	Benzimidazole
2	Sulfathiazole	256.0000>92.0000	3.492	Sulfonamide	25	Albendazole Sulfone	298.0000>159.0000	7.168	Benzimidazole
3	Lincomycin	407.2000>126.1000	3.805	Lincosamide	26	Sulfaquinoxaline	301.1000>156.0000	7.526	Sulfonamide
4	Sulfapyridine	250.1000>184.0000	3.811	Sulfonamide	27	Phenylbutazone	309.1000>120.1000	7.605	NSAID
5	Albendazole-2-amino	240.0000>133.1000	4.053	Benzimidazole	28	Tilmicosin	435.4000>174.1000	8.026	Macrolide
6	Trimethoprim	291.1000>230.0000	4.112	Quinolone	29	Flumequin	262.0000>244.1000	9.007	Quinolone
7	Ormetoprim	275.1000>123.1000	4.699	Quinolone	30	Nalidixic Acid	233.1000>215.1000	9.041	Quinolone
8	Tetracycline	445.1000>410.1000	4.715	Tetracycline	31	Oxolinic Acid	261.9000>244.0000	9.145	Quinolone
9	Enrofloxacin	360.1000>342.1000	5.001	Quinolones	32	Kitasamycin	772.3000>174.2000	9.514	Macrolide
10	Danofloxacin	358.1000>340.0000	5.013	Quinolones	33	Tylosin	916.5000>174.1000	9.517	Macrolide
11	Sulfaclozine	285.0000>156.0000	5.015	Sulfonamide	34	Florfenicol Amine	248.0000>230.1000	9.476	Amphenicol
12	Sulfachloropyridazine	285.0100>92.0000	5.029	Sulfonamide	35	Erythromycin A	734.4000>576.4000	9.545	Macrolide
13	Sulfamerazine	265.0000>108.0000	5.072	Sulfonamide	36	Malachite Green	329.2000>313.2000	9.814	Dye
14	Diclofenac	296.0000>214.0000	5.106	NSAID	37	Albendazole	266.0000>234.0000	10.254	Benzimidazole
15	Difloxacin	400.1000>382.1000	5.422	Quinolone	38	Cloxacillin	436.0000>277.0000	10.455	Macrolide
16	Amoxicillin	366.0000>113.9000	5.496	Beta-lactam	39	Dicloxacillin	470.0000>160.0000	10.505	Macrolide
17	Chlortetracycline	479.1000>444.0000	5.508	Tetracycline	40	Leucocrystal Violet	374.2000>238.2000	10.785	Dye
18	Sulfadoxine	311.0000>92.0000	5.761	Sulfonamide	41	Crystal Violet	372.2000>356.2000	10.875	Dye
19	Sulfaethoxy-pyridazine	295.0000>140.1000	6.023	Sulfonamide	42	Brilliant Green	385.2000>341.1000	11.425	Dye
20	Penicillin G	335.0000>159.9000	6.125	Beta-lactam	43	Dapsone	249.0000>156.0000	11.535	Sulfone
21	Neospiramycin	350.2000>174.2000	6.357	Macrolide	44	Carprofen	274.0000>228.1000	13.025	NSAID
22	Spiramycin	422.4000>174.2000	7.020	Macrolide	45	Ivermectin	897.6000>240.1000	13.565	Macrolide
23	Sulfadimethoxine	311.1000>108.0000	7.026	Sulfonamide					

