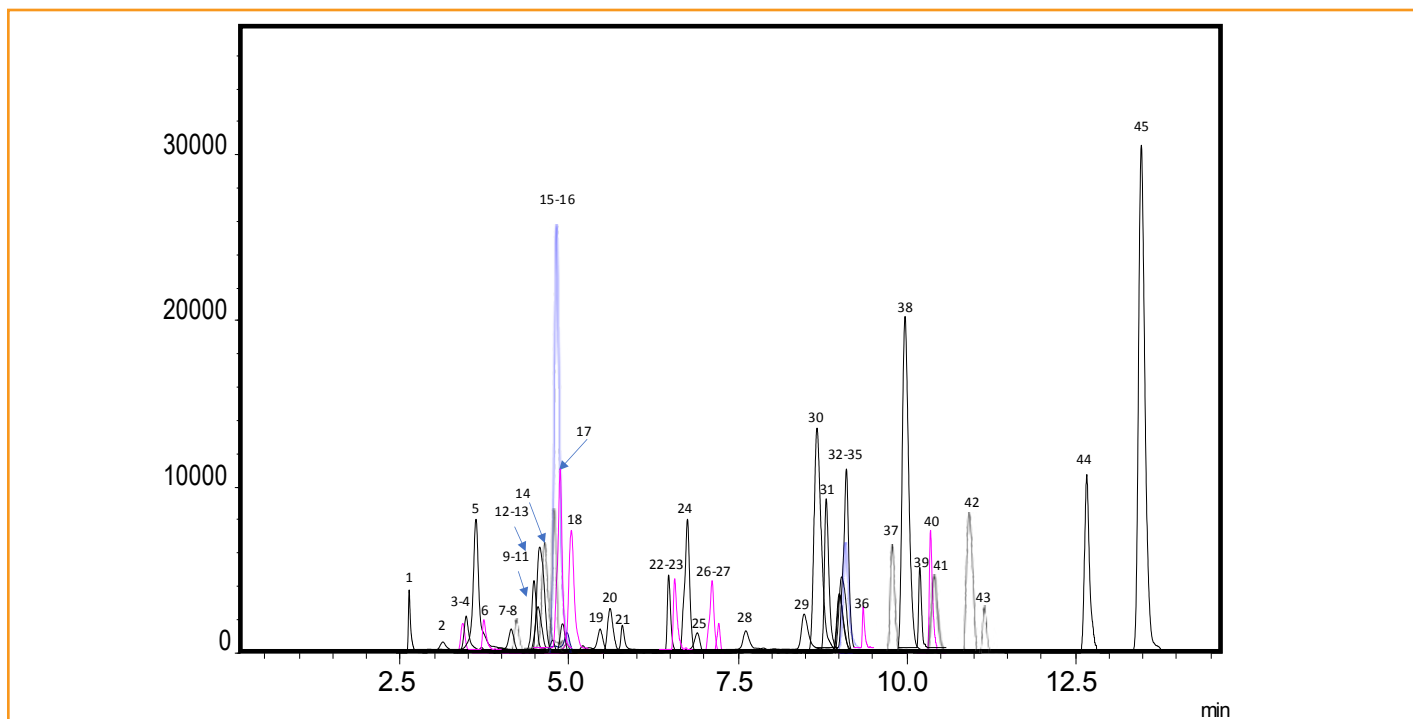




LC-MS Analysis of Veterinary Drugs Using HALO® C18

276-vt



TEST CONDITIONS:

Analytical Column: HALO 90 Å C18, 2.7 μ m, 2.1 x 100 mm
 Part Number: 92812-602
 Mobile Phase A: Water, 0.1 % Formic Acid
 Mobile Phase B: ACN, 0.1% Formic Acid
 Flow Rate: 0.4 mL/min
 Pressure: 228 bar
 Temperature: 35 °C
 Injection Volume: 2.0 μ L
 Sample Solvent: 50/50/ MEOH/H₂O
 Detection: +ESI MS/MS
 LC System: Shimadzu Nexera X2
 ESI LCMS system: Shimadzu LCMS-8040
 Gradient

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

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® C18 for the separation and identification of a complex mix 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 high speed separation is easily accomplished and can definitely find application in high throughput environments.

MS Source 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





Peak id	Drug	Transition	Reten. Time	Classification
1	Ciprofloxacin	332.1000>314.1000	2.515	Quinolone
2	Sulfathiazole	256.0000>92.0000	3.021	Sulfonamide
3	Lincomycin	407.2000>126.1000	3.334	Lincosamide
4	Sulfapyridine	250.1000>184.0000	3.340	Sulfonamide
5	Albendazole-2amino	240.0000>133.1000	3.582	Benzimidazole
6	Trimethoprim	291.1000>230.0000	3.641	Quinolone
7	Ormetoprim	275.1000>123.1000	4.228	Quinolone
8	Tetracycline	445.1000>410.1000	4.234	Tetracycline
9	Enrofloxacin	360.1000>342.1000	4.520	Quinolones
10	Danofloxacin	358.1000>340.0000	4.532	Quinolones
11	Sulfaclozine	285.0000>156.0000	4.534	Sulfonamide
12	Sulfachloropyridazine	285.0100>92.0000	4.548	Sulfonamide
13	Sulfamerazine	265.0000>108.0000	4.591	Sulfonamide
14	Diclofenac	296.0000>214.0000	4.625	NSAID
15	Difloxacin	400.1000>382.1000	4.941	Quinolone
16	Amoxicillin	366.0000>113.9000	5.015	Beta-lactam
17	Chlortetracycline	479.1000>444.0000	5.027	Tetracycline
18	Sulfadoxine	311.0000>92.0000	5.280	Sulfonamide
19	Sulfaethoxypyridazine	295.0000>140.1000	5.542	Sulfonamide
20	Penicillin G	335.0000>159.9000	5.626	Beta-lactam
21	Neospiramycin	350.2000>174.2000	5.858	Macrolide
22	Spiramycin	422.4000>174.2000	6.521	Macrolide
23	Sulfadimethoxine	311.1000>108.0000	6.527	Sulfonamide
24	Albendazole Sulfoxide	282.1000>208.0000	6.638	Benzimidazole

Peak id	Drug	Transition	Reten. Time	Classification
25	Albendazole Sulfone	298.0000>159.0000	6.669	Benzimidazole
26	Sulfaquinoxaline	301.1000>156.0000	7.027	Sulfonamide
27	Phenylbutazone	309.1000>120.1000	7.106	NSAID
28	Tilmicosin	435.4000>174.1000	7.527	Macrolide
29	Flumequin	262.0000>244.1000	8.508	Quinolone
30	Nalidixic Acid	233.1000>215.1000	8.542	Quinolone
31	Oxolinic Acid	261.9000>244.0000	8.646	Quinolone
32	Kitasamycin	772.3000>174.2000	9.015	Macrolide
33	Tylosin	916.5000>174.1000	9.018	Macrolide
34	Florfenicol Amine	248.0000>230.1000	9.051	Amphenicol
35	Erythromycin A	734.4000>576.4000	9.120	Macrolide
36	Malachite Green	329.2000>313.2000	9.389	Dye
37	Albendazole	266.0000>234.0000	9.829	Benzimidazole
38	Cloxacillin	436.0000>277.0000	10.030	Macrolide
39	Dicloxacillin	470.0000>160.0000	10.080	Macrolide
40	Leucocrystal Violet	374.2000>238.2000	10.360	Dye
41	Crystal Violet	372.2000>356.2000	10.450	Dye
42	Brilliant Green	385.2000>341.1000	11.000	Dye
43	Dapsone	249.0000>156.0000	11.110	Sulfone
44	Carprofen	274.0000>228.1000	12.600	NSAID
45	Ivermectin	897.6000>240.1000	13.140	Macrolide

