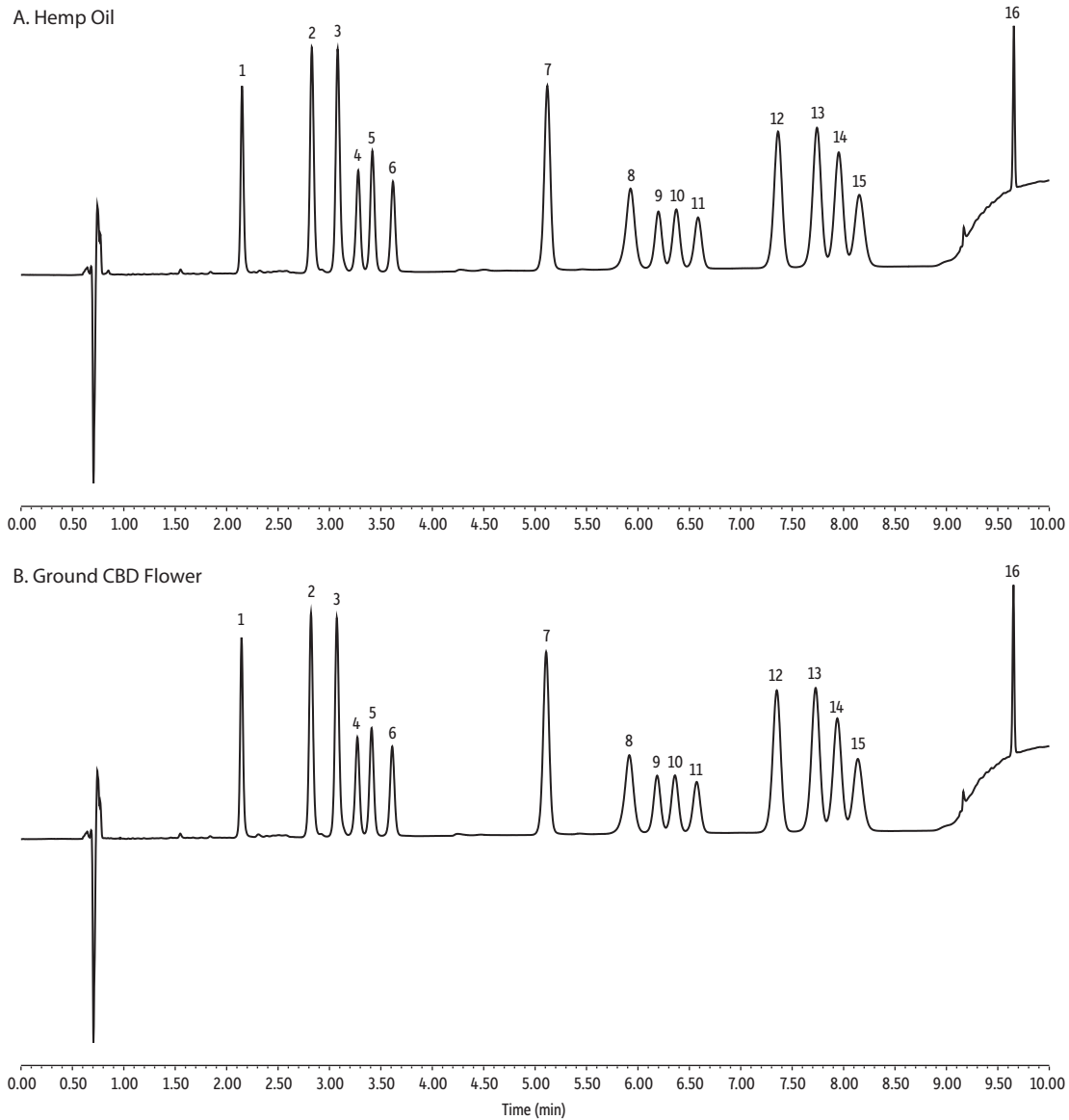


Potency Method for 16 Cannabinoids in Matrix on 150 x 3 mm, 2.7 µm Raptor ARC-18



LC_FF0620

Peaks	tr (min)
1. Cannabidiol (CBDV)	2.153
2. Cannabidiolic acid (CBDA)	2.832
3. Cannabigerolic acid (CBGA)	3.084
4. Cannabigerol (CBG)	3.285
5. Cannabidiol (CBD)	3.424
6. Tetrahydrocannabinol (THCV)	3.624
7. Cannabinol (CBN)	5.128
8. Cannabinolic acid (CBNA)	5.937
9. Exo-Tetrahydrocannabinol (exo-THC)	6.210
10. Δ9-Tetrahydrocannabinol (Δ9-THC)	6.383
11. Δ8-Tetrahydrocannabinol (Δ8-THC)	6.596
12. (6aR,9S)-delta-10-Tetrahydrocannabinol ((6aR,9S)-Δ-10-THC)	7.375
13. (6aR,9R)-delta-10-Tetrahydrocannabinol ((6aR,9R)-Δ-10-THC)	7.755
14. Cannabichromene (CBC)	7.966
15. Δ-9-Tetrahydrocannabinolic acid-a (THCA-A)	8.166
16. Tetrahydrocannabinol acetate (THCO acetate)	9.658

Standard/Sample	Diluent:
Cannabidiol (CBD) (cat.# 34011)	25:75 Water:acetonitrile
Cannabidiolic acid (CBDA) (cat.# 34094)	50 ppm
d9-Tetrahydrocannabinol (d9-THC) (cat.# 34067)	Inj. Vol.: 3 µL
d8-Tetrahydrocannabinol (d8-THC) (cat.# 34090)	
d9-Tetrahydrocannabinolic acid A (THCA-A) (cat.# 34111)	
Cannabidiol (CBDV) (cat.# 34123)	
Cannabigerol (CBG) (cat.# 34091)	
Tetrahydrocannabinol (THCV) (cat.# 34100)	
Cannabigerolic acid (CBGA) (cat.# 34135)	
Cannabinol (CBN) (cat.# 34010)	
Cannabichromene (CBC) (cat.# 34092)	
Cannabinolic acid (CBNA) (cat.# 34138)	
Compounds not present in these mixes were obtained separately.	

Mobile Phase	
A:	Water, 6 mM ammonium formate, 0.1% formic acid
B:	Acetonitrile, 0.1% formic acid

Time (min)	Flow (mL/min)	%A	%B
0.00	0.8	30	70
8.00	0.8	26	74
8.01	0.8	0	100
10.00	0.8	0	100
10.01	0.8	30	70
12.00	0.8	30	70

Detector
Flow Cell Size:
Instrument
Sample Preparation

UV/Vis @ 228 nm
500 nL
Waters ACQUITY UPLC H-Class
A. Hemp oil was prepared by aliquot-
ing 50 µL of oil and adding 950 µL of
acetonitrile. After vortexing for 30
seconds, 750 µL were transferred to a
vial and 250 µL of water were added.
The sample was vortexed, a 20-fold
dilution was performed, and analytes
were spiked at 50 ppm.

B. Ground CBD flower was prepared
by weighing 500 mg in a centrifuge
tube and extracting with 10 mL of
80:20 methanol:water. Samples
were vortexed for 15 seconds and
sonicated for 5 minutes (3 cycles)
and then centrifuged at 4000 rpm for
5 minutes. Supernatant was diluted
50-fold and all analytes were spiked
at 50 ppm, except CBDA which was
measured at endogenous levels.

All samples were prepared in a 2 mL
vial (cat.# 21142) and capped with a
short screw cap (cat.# 24498).

