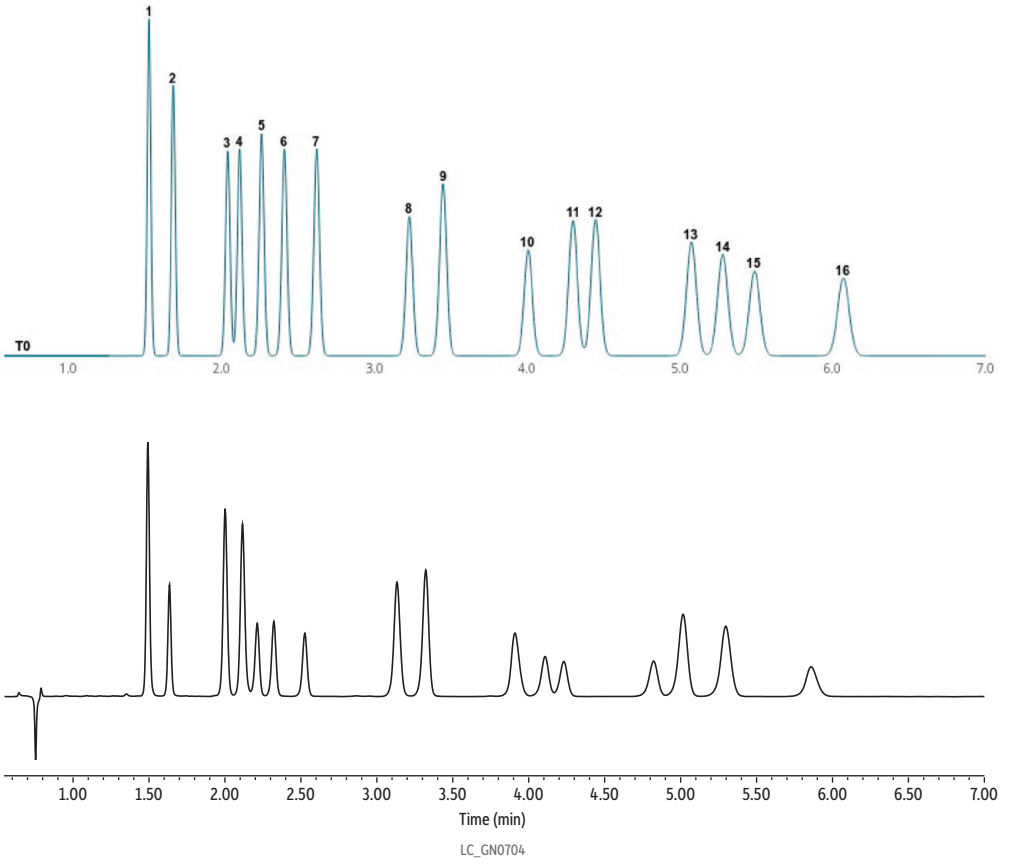
Comparison of 16 Cannabinoids—Optimized Pro *EZ*LC Model



Peaks	Modeled (min)	Experimental (min)	Difference (sec)
1. Cannabidivarinic acid (CBDVA)	1.52	1.49	1.80
2. Cannabidivarin (CBDV)	1.68	1.64	2.40
3. Cannabidiolic acid (CBDA)	2.04	2.00	2.40
4. Cannabigerolic acid (CBGA)	2.12	2.12	0.00
5. Cannabigerol (CBG)	2.26	2.21	3.00
6. Cannabidiol (CBD)	2.41	2.32	5.40
7. Tetrahydrocannabivarin (THCV)	2.62	2.53	5.40
8. Tetrahydrocannabivarinic acid (THCVA)	3.23	3.14	5.40
9. Cannabinol (CBN)	3.45	3.33	7.20
10. Cannabinolic acid (CBNA)	4.01	3.91	6.00
11. Δ9-Tetrahydrocannabinol (Δ9-THC)	4.30	4.11	11.40
12. Δ8-Tetrahydrocannabinol (Δ8-THC)	4.45	4.24	12.60
13. Cannabicyclol (CBL)	5.07	4.83	14.40
14. Cannabichromene (CBC)	5.28	5.02	15.60
15. Tetrahydrocannabinolic acid A (THCA-A)	5.49	5.30	11.40
16. Cannabichromenic acid (CBCA)	6.07	5.87	12.00

Column
Dimensions: 150 mm x 4.6 mm ID
Particle Size: 2.7 µm
Pore Size: 90 Å
Temp.: 35 °C

Standard/Sample

Cannabinoids acids 7 standard, 1000 µg/mL, acetonitrile with 1% DIPEA and 0.05% ascorbic acid, 1 mL/ampul (cat.# 34144)
Cannabinoids neutrals 9 standard, 1000 µg/mL, P&T methanol, 1 mL/ampul (cat.# 34132)
Diluent: Acetonitrile
Conc.: 50 ppm
Inj. Vol.: 5 µL

Mobile Phase
A: Water, 4 mM ammonium formate, 0.1 % formic acid
B: Acetonitrile, 0.1 % formic acid

Time (min)	Flow (mL/min)	%A	%B
0.00	1.7	23	77
7.00	1.7	23	77

Detector UV/Vis @ 228 nm
Flow Cell Size: 500 nL
Instrument Waters ACQUITY UPLC H-Class
Sample Preparation Working standard was prepared in a 2 mL, 9 mm amber vial (cat. 21142) by diluting 50 µL of each standard into 900 µL acetonitrile and capped with a 9 mm short screw cap (cat. 24497).

RESTEK
© 2025 Restek Corporation. All rights reserved.
www.restek.com

For information on Restek patents and trademarks, visit **www.restek.com/patents-trademarks** To unsubscribe from future Restek communications or to update your preferences, visit **www.restek.com/subscribe** To update your status with an authorized Restek distributor or instrument channel partner, please contact them directly.