



HPLC Analysis of Synthetic (Spice) Cannabinoids on Ascentis® Express F5

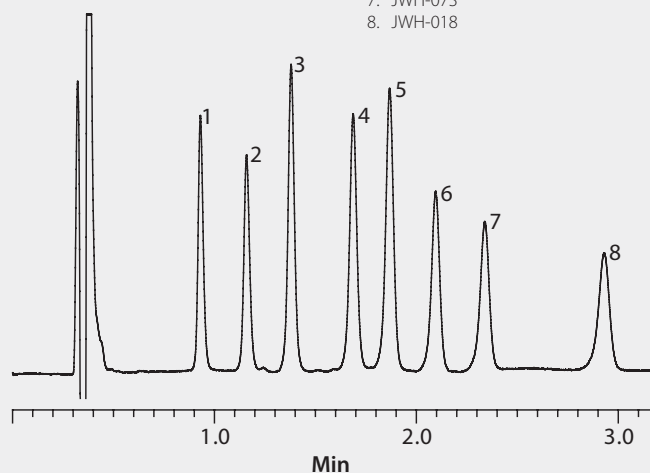
Synthetic cannabinoids (Spice) are a relatively new type of designer drug used as a pseudo-legal means to get a cannabis-type high. New synthetic cannabinoids are continually being introduced as suppliers tweak the molecular structures. The ability to rapidly and reliably identify the continually changing population of these compounds is a significant analytical challenge facing forensic chemists. A rapid

separation of nine of these compounds on Ascentis® Express F5 column is shown here. Cerilliant certified reference material grade standards enabled confident identification. We recommend using HybridSPE®-Phospholipid plates to extract these compounds from serum or plasma.

HPLC Analysis of Spice Compounds on Ascentis Express F5

column: Ascentis Express F5, 10 cm x 2.1 mm I.D., 2.7 µm (53569-U)
mobile phase: (A) 50 mM ammonium formate; (B) water; (C) acetonitrile;
(10:35:55, A:B:C)
flow rate: 0.6 mL/min
temp.: 35 °C
pressure (column): 4140 psi
detector: UV, 200 nm
injection: 3 µL
sample: 100 µg/mL in water: acetonitrile (45:55) (Spice standards from Cerilliant®)

1. JWH-073 3-hydroxybutyl metabolite
2. JWH-200
3. CP-47,497
4. CP-47,497 C8
5. HU-210, HU-211
6. JWH-250
7. JWH-073
8. JWH-018





Spice Cannabinoids on Ascentis® Express F5

Following is a selection of products that can be used in this application. It is meant for research and forensic applications and not for medical or diagnostic purposes.

Cerilliant Certified Reference Materials*

| Cat. No. | Description |
|-------------------------------|--|
| Parent drugs and mixes | |
| S-038 | Spice Cannabinoid Mix (JWH-250; JWH-200; HU-211; (±)-CP 47,497; and (±)-CP 47,497 C8 homologue), 100 µg/mL of each component in acetonitrile, 1 mL/ampoule |
| S-041 | Spice Cannabinoid Mix 2 (JWH-019, JWH-122, JWH-081, AM-2201), 100 µg/mL of each component in acetonitrile, 1 mL/ampoule |
| S-047 | Spice Cannabinoid Mix 3 (RCS-4, RCS-8, JWH-015, JWH-203, JWH-210, AM-2233), 100 µg/mL of each component in acetonitrile, 1 mL/ampoule |
| S-027 | JWH-073, 100 µg/mL in acetonitrile, 1 mL/ampoule |
| S-025 | JWH-018, 100 µg/mL in methanol, 1 mL/ampoule |
| S-024 | HU-210, 100 µg/mL in methanol, 1 mL/ampoule |
| Metabolites (-OH) | |
| S-037 | JWH-073 3-Hydroxybutyl metabolite, 100 µg/mL in methanol, 1 mL/ampoule |
| S-035 | JWH-018 4-Hydroxypentyl metabolite, 100 µg/mL in methanol, 1 mL/ampoule |
| S-043 | JWH-019 6-Hydroxyhexyl metabolite, 100 µg/mL in methanol, 1 mL/ampoule |
| S-044 | JWH-019 5-Hydroxyhexyl metabolite, 100 µg/mL in methanol, 1 mL/ampoule |
| S-045 | JWH-250 5-Hydroxypentyl metabolite, 100 µg/mL in methanol, 1 mL/ampoule |
| Metabolites (-COOH) | |
| S-033 | JWH-018 5-Pentanoic acid metabolite, 100 µg/mL in methanol, 1 mL/ampoule |
| S-036 | JWH-073 4-Butanoic acid metabolite, 100 µg/mL in methanol, 1 mL/ampoule |
| Internal Standards | |
| S-039 | JWH-018 4-Hydroxypentyl metabolite-D ₅ (indole-D ₅), 100 µg/mL in methanol, 1 mL/ampoule |
| S-040 | JWH-073 3-Hydroxybutyl metabolite-D ₅ (indole-D ₅), 100 µg/mL in methanol, 1 mL/ampoule |

*New products are continually being introduced. Please consult the Cerilliant website (cerilliant.com) for the up to date listing of reference standards.

For a complete listing of Cerilliant standards and to order, visit cerilliant.com

HPLC Columns and Guard Columns

| Cat. No. | Description |
|----------|--|
| 53569-U | Ascentis® Express F5, 10 cm x 2.1 mm I.D., 2.7 µm |
| 53567-U | Ascentis Express F5, 5 cm x 2.1 mm I.D., 2.7 µm |
| 53594-U | Ascentis Express F5, 2.1 mm I.D., 2.7 µm (pack of 3) |
| 53500-U | Universal Guard Holder |

LC-MS Ultra CHROMASOLV® Solvents and Additives

| Cat. No. | Description |
|----------|---|
| 14261 | Acetonitrile, LC-MS Ultra CHROMASOLV, 1 L, 2 L |
| 14262 | Methanol, LC-MS Ultra CHROMASOLV, 1 L, 2 L |
| 14263 | Water, LC-MS Ultra CHROMASOLV, 1 L, 2 L |
| 14264 | Trifluoroacetic acid, LC-MS Ultra eluent additive, 1 mL, 2 mL |
| 14265 | Formic acid, LC-MS Ultra eluent additive, 1 mL, 2 mL |
| 14266 | Ammonium formate, LC-MS Ultra eluent additive, 25 g |
| 14267 | Ammonium acetate, LC-MS Ultra eluent additive, 25 g |

HybridSPE Phospholipid Plates, Tubes and Accessories

| Cat. No. | Description |
|----------|---|
| 52813-U | HybridSPE®-Phospholipid 96-Well Essentials Kit. Includes: HybridSPE-Phospholipid 96-well plate (575656-U), cap mat (575655-U), and collection plate (575653-U). |

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