



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

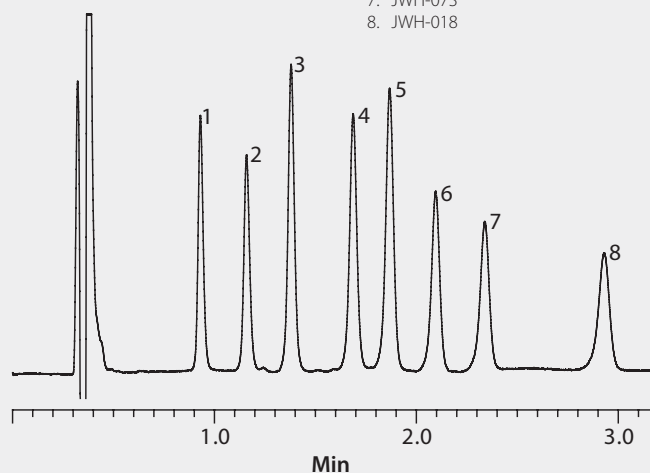
Synthetic cannabinoids (Spice) are a relatively new type of designer drug used as a pseudo-legal means to get a cannabis-type high. New synthetic cannabinoids are continually being introduced as suppliers tweak the molecular structures. The ability to rapidly and reliably identify the continually changing 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
<b>Parent drugs and mixes</b>	
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
<b>Metabolites (-OH)</b>	
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
<b>Metabolites (-COOH)</b>	
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
<b>Internal Standards</b>	
S-039	JWH-018 4-Hydroxypentyl metabolite-D <sub>5</sub> (indole-D <sub>5</sub> ), 100 µg/mL in methanol, 1 mL/ampoule
S-040	JWH-073 3-Hydroxybutyl metabolite-D <sub>5</sub> (indole-D <sub>5</sub> ), 100 µg/mL in methanol, 1 mL/ampoule

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

For a complete listing of Cerilliant standards and to order, visit [cerilliant.com](http://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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