ANALYTICAL REPORT

5-fluoro-JWH-018_adamantyl-analog (C24H30FNO)

3-(adamantane-1-carbonyl)-1-(5-fluoropentyl)-1H-indole

Remark – other active cpd. detected: none

Sample ID: 1608-16
Sample description: crystalinic - white
Sample type: RM-reference material
Comments¹: CAY Lot#0447611-30; RESPONSE -purchasing
Date of entry: 7/18/2016

Substance identified-structure² (base form)

Systematic name: 3-(adamantane-1-carbonyl)-1-(5-fluoropentyl)-1H-indole
Other names: [1-(5-fluoropentyl)-1H-indol-3-yl]tricyclo[3.3.1.1³,⁷]dec-1-yl-methanone; 5F-AB-001; AM2201 adamantyl analog
Formula (per base form) C24H30FNO
M_w (g/mol) 367.51
Salt form: base
StdInChIKey WBLLMXPGHZZFPP-UHFFFAOYSA-N
Compound Class Cannabinoids
Other active cpd. detected none
Add.info (purity..) 98 %

¹ This report has been produced with the financial support of the Prevention of and fight against crime Programme of the European Union (grant agreement number JUST/2013/ISEC/DRUGS/AG/6413). The contents of this report are the sole responsibility of the National Forensic Laboratory and can in no way be taken to reflect the views of the European Commission.
² Created by OPSIN free tool: http://opsin.ch.cam.ac.uk/ DOI: 10.1021/ci100384d
Report updates

<table>
<thead>
<tr>
<th>date</th>
<th>comments (explanation)</th>
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<tbody>
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Supporting information

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<tr>
<th>Analytical technique</th>
<th>applied</th>
<th>remarks</th>
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<tbody>
<tr>
<td>GC-MS (EI ionization)</td>
<td>NFL GC-RT</td>
<td>(min): 15.37 BP(1): 232; BP(2): 144, BP(3): 233,</td>
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<tr>
<td>FTIR-ATR</td>
<td>direct</td>
<td>measurement</td>
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<tr>
<td>GC-IR (condensed phase)</td>
<td>always as</td>
<td>base form</td>
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1. **GC-MS** (Agilent): GC-method is RT locked to tetracosane (9.258 min). Injection volume 1 ml and split mode (1:50). Injector temperature: 280 °C. Chromatographic separation: on column HP1-MS (100% dimethylpolysiloxane), length 30 m, internal diameter 0.25 mm, film thickness 0.25 µm. Carrier gas He: flow-rate 1.2 ml/min. GC oven program: 170 °C for 1 min, followed by heating up to 190 °C at rate 8 °C/min, then heating up to 293 °C at a rate of 18 °C/min, hold for 6.1 min, then heating at 50 °C/min up to 325 °C and finally 6.1 min isothermal. MSD source EI = 70 eV. GC-MS transfer line T= 235 °C, source and quadrupole temperatures 280 °C and 180 °C, respectively. Scan range m/z scan range: from 50 (30 until 6 min.) to 550 (300 until 6 min) amu.

2. **FTIR-ATR** (Perkin Elmer): scan range 4000-400 cm⁻¹; resolution 4 cm⁻¹

3. **GC- (MS)-IR** condensed phase (GC-MS (Agilent) & IR (Spectra analyses-Danny))
   MSD source EI = 70 eV. GC-MS transfer line T= 235 °C, source and quadrupole temperatures 280 °C and 180 °C, respectively. Scan range m/z scan range: from 50 (30 until 6 min.) to 550 (300 until 6 min) amu.
   IR (condensed (solid) phase): IR scan range 4000 to 650, resolution 4 cm⁻¹.
FIGURES OF SPECTRA

MS (EI)

Abundance

Scan 2854 (15.366 min): 5-fluoro JWH-018 analog_1608-1S_CAY.D\data.ms

m/z →

55.1 73.1 116.0 144.0 170.1 207.0 232.1 264.1 292.1 336.2 367.2
FTIR-ATR

IR-Condensed phase

NOTE: This is condensed phase IR (per base form of substance) Instrument (DiscoIR-GC)

Name | Description
--- | ---
5-fluoro-adamantyl-analog 1608-16_CAV-IR | ID 1608-16 1-[5-fluoropentyl]-1H-imidazol-1-carboxylate (3.3.1.11) dec-1-y-methanesulfo-L-160471-16
5-fluoro-adamantyl-analog 1608-16_CAV-IR | Sample ID 1608-16 1-[5-fluoropentyl]-1H-imidazol-1-carboxylate (3.3.1.11) dec-1-y-methanesulfo-L-160471-16