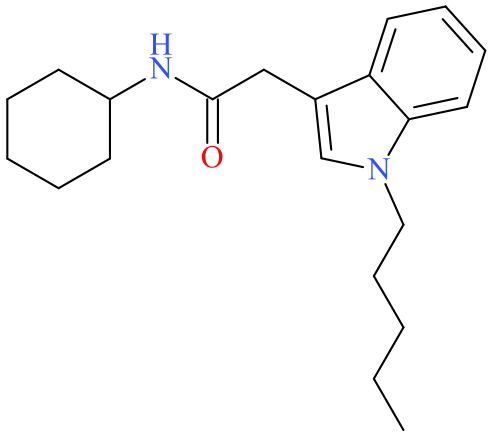
CH-PIATA

Sample Type: **Drug Material**



Latest Revision: **April 29, 2022**

Date Received: **November 11, 2021**

Date of Report: **April 29, 2022**

1. GENERAL INFORMATION

IUPAC Name:	N-cyclohexyl-2-(1-pentylindol-3-yl)acetamide
InChI String:	InChI=1S/C21H30N2O/c1-2-3-9-14-23-16-17(19-12-7-8-13-20(19)23)15-21(24)22-18-10-5-4-6-11-18/h7-8,12-13,16,18H,2-6,9-11,14-15H2,1H3,(H,22,24)
CFR:	Not Scheduled (04/2022)
CAS#	Not Available
Synonyms:	Cyclohexyl-PIATA, CHX-PIATA, CH-PIACA, CHX-PIACA
Source:	Indianapolis-Marion County Forensic Services Agency
Appearance:	Plant-Like Material

***Important Note**: All identifications were made based on evaluation of analytical data (GC-MS and LC-QTOF-MS) in comparison to analysis of acquired reference material.*

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2. CHEMICAL AND PHYSICAL DATA

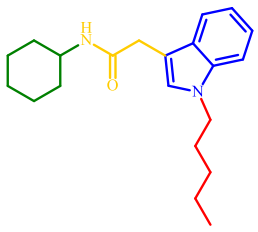
2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Molecular Ion $[M^+]$	Exact Mass $[M+H]^+$
Base	$C_{21}H_{30}N_2O$	326.5	326	327.2431

3. BRIEF DESCRIPTION

CH-PIATA is classified as a synthetic cannabinoid. Prior generations of synthetic cannabinoids were reported to cause psychoactive effects similar to delta-9-tetrahydrocannabinol (THC), and caused adverse events, including deaths, as described in the literature. New synthetic cannabinoid subclasses have recently emerged among the recreation drug supply nationally and internationally, seemingly as replacement drugs after a synthetic cannabinoid class-wide ban implemented by China in July 2021 which included most traditional indole carboxamide and indazole carboxamide structural scaffolds. Synthetic cannabinoids of this new generation mostly lack pharmacological and toxicological data in the literature, especially in humans, although some have been studied for medicinal purposes. Scientists at Cayman Chemical and the CFSRE continue to adopt preferred names for these new synthetic cannabinoids based on previously developed and accepted naming conventions (see below). For this drug, “ATA” represents the linker region of the synthetic cannabinoid structure. No data or information are available for CH-PIATA in the literature. Currently, CH-PIATA and the newest generation of synthetic cannabinoids are not scheduled substances in the United States.

CH-PIATA



N-**c**yclo**h**exyl-2-(1-**p**enty**l**indol-3-yl)a**c**e**t**a**m**ide

Preferred Name: **CH-PIATA**

4. ADDITIONAL RESOURCES

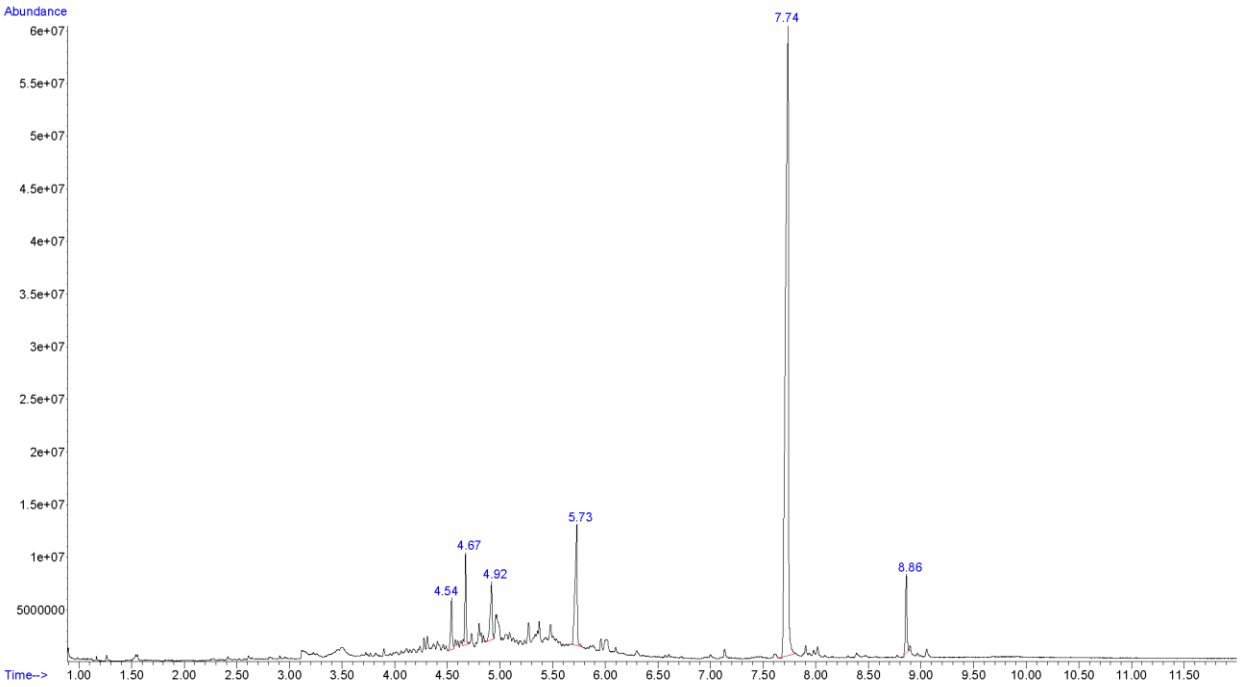
https://www.caymanchem.com/product/36558/ch-piata

5. QUALITATIVE DATA

5.1 GAS CHROMATOGRAPHY MASS SPECTROMETRY (GC-MS)

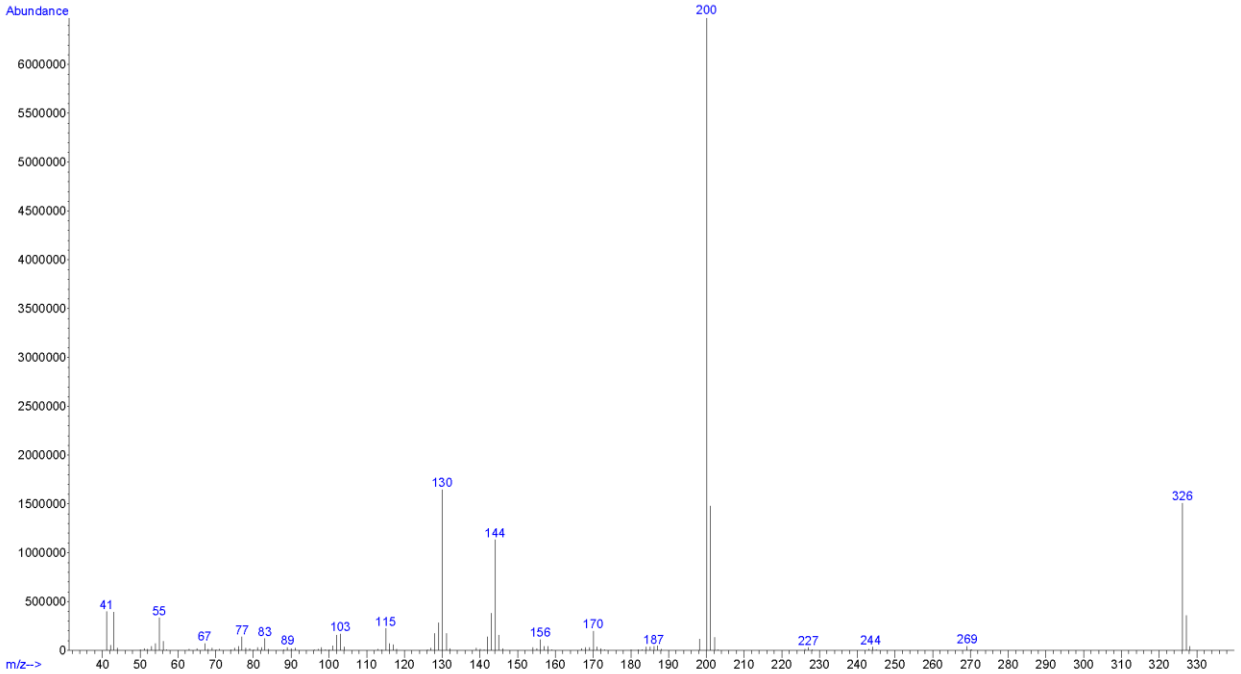
Testing Performed At:	The Center for Forensic Science Research and Education at the Fredric Rieders Family Foundation (Willow Grove, PA)
Sample Preparation:	Dilution in methanol (Indianapolis-Marion County Forensic Services Agency)
Instrument:	Agilent 5975 Series GC/MSD System
Column:	Agilent J&W DB-1 (12 m x 200 µm x 0.33 µm)
Carrier Gas:	Helium (Flow: 1.46 mL/min)
Temperatures:	Injection Port: 265 °C
	Transfer Line: 300 °C
	MS Source: 230 °C
	MS Quad: 150 °C
	Oven Program: 50 °C for 0 min, 30 °C/min to 340 °C for 2.3 min
Injection Parameters:	Injection Type: Splitless
	Injection Volume: 1 µL
MS Parameters:	Mass Scan Range: 40-550 m/z
	Threshold: 250
Retention Time:	7.74 min
Standard Comparison:	Reference material for CH-PIATA (Batch: 0641822-2) was purchased from Cayman Chemical (Ann Arbor, MI, USA). Analysis of this standard resulted in positive identification of the analyte in the exhibit as CH-PIATA based on retention time (7.70 min) and mass spectral data. (https://www.caymanchem.com/product/36558/ch-piata)

Chromatogram: CH-PIATA



Additional peaks in chromatogram: not controlled substances (4.54 – 4.92 mins), internal standard (5.73 mins), not a controlled substance (8.86 mins)

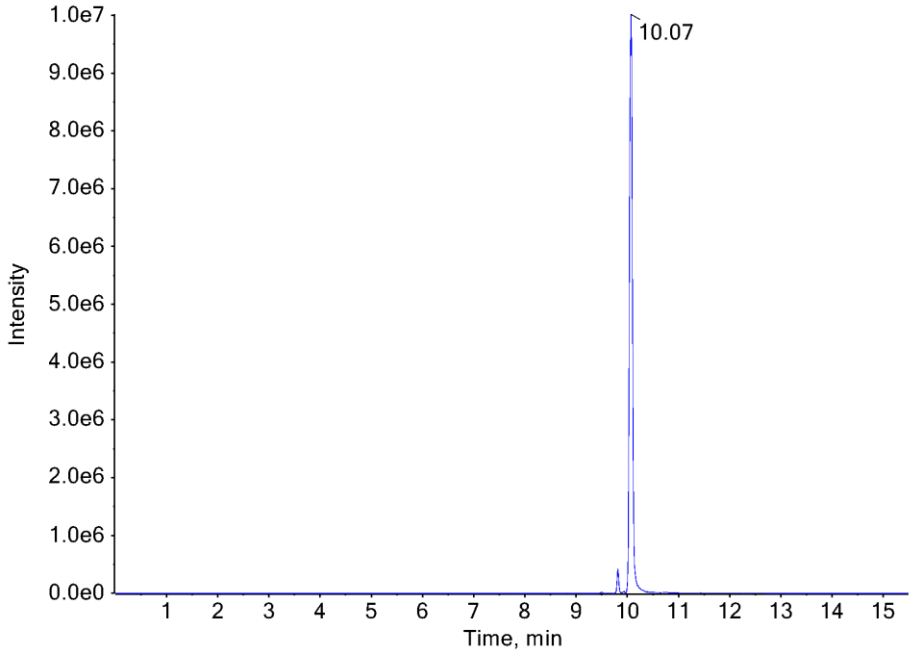
EI (70 eV) Mass Spectrum: CH-PIATA



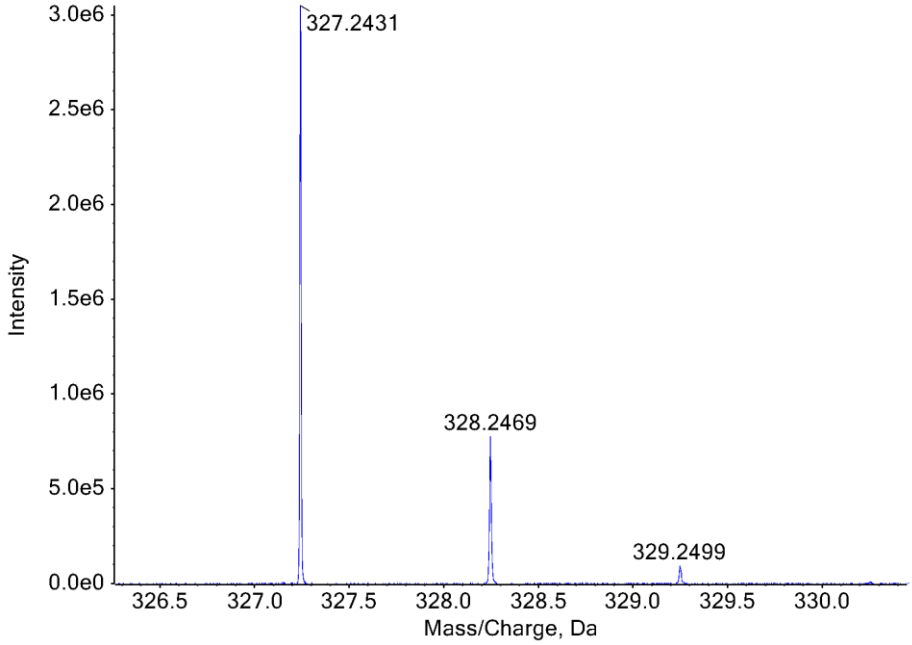
5.2 LIQUID CHROMATOGRAPHY QUADRUPOLE TIME OF FLIGHT MASS SPECTROMETRY (LC-QTOF)

Testing Performed At:	The Center for Forensic Science Research and Education at the Fredric Rieders Family Foundation (Willow Grove, PA)
Sample Preparation:	Dilution in methanol (Indianapolis-Marion County Forensic Services Agency) followed by 1:100 dilution of GC-MS sample in mobile phase (CFSRE)
Instrument:	Sciex TripleTOF® 5600+, Shimadzu Nexera XR UHPLC
Column:	Phenomenex® Kinetex C18 (50 mm x 3.0 mm, 2.6 µm)
Mobile Phase:	A: Ammonium formate (10 mM, pH 3.0)
	B: Methanol/acetonitrile (50:50)
	Flow rate: 0.4 mL/min
Gradient:	Initial: 95A:5B; 5A:95B over 13 min; 95A:5B at 15.5 min
Temperatures:	Autosampler: 15 °C
	Column Oven: 30 °C
	Source Heater: 600 °C
Injection Parameters:	Injection Volume: 10 µL
QTOF Parameters:	TOF MS Scan Range: 100-510 Da
	Precursor Isolation: SWATH® acquisition (27 windows)
	Fragmentation: Collison Energy Spread (35±15 eV)
	MS/MS Scan Range: 50-510 Da
Retention Time:	10.07 min
Standard Comparison:	Reference material for CH-PIATA (Batch: 0641822-2) was purchased from Cayman Chemical (Ann Arbor, MI, USA). Analysis of this standard resulted in positive identification of the analyte in the exhibit as CH-PIATA based on retention time (10.09 min) and mass spectral data. (https://www.caymanchem.com/product/36558/ch-piata)

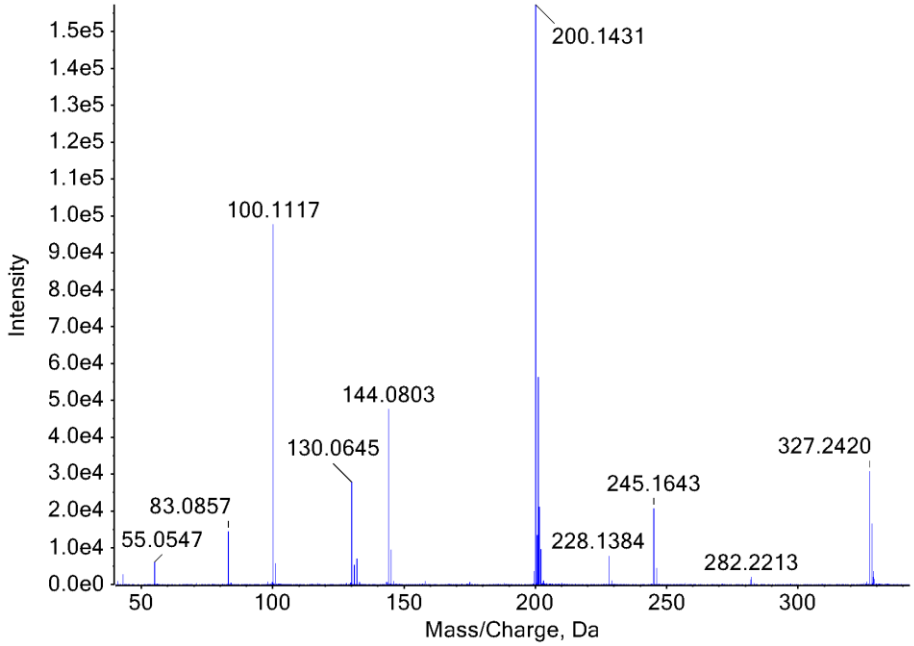
Extracted Ion Chromatogram: CH-PIATA



TOF MS Spectra: CH-PIATA



TOF MS/MS Spectra: CH-PIATA



6. FUNDING

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