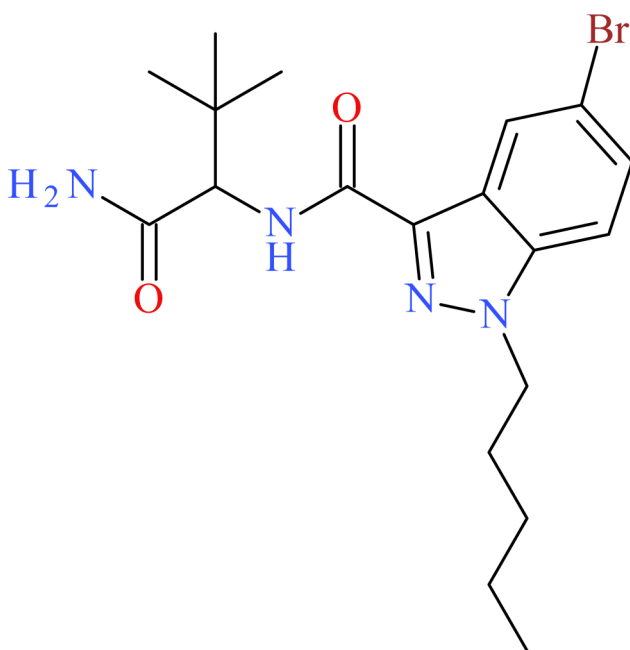




دائرة القضاء
JUDICIAL DEPARTMENT



ADB-5'Br-PINACA



NPS SUBCLASS	Synthetic Cannabinoid
REPORT DATE	May 1, 2023
SAMPLE RECEIVED	March 3, 2023
SAMPLE TYPE	Drug Material

Preferred Name	ADB-5'Br-PINACA
Synonyms	ADB-P-5Br-INACA, ADB-P-5'Br-INACA, 5'Br-ADB-PINACA, ADB-5Br-PINACA
Formal Name	5-bromo-N-(1-carbamoyl-2,2-dimethyl-propyl)-1-pentyl-indazole-3-carboxamide
InChI Key	OUVRBTCXLMBRLT-UHFFFAOYSA-N
CAS Number	Not Available
Chemical Formula	C ₁₉ H ₂₇ BrN ₄ O ₂
Molecular Weight	423.35
Molecular Ion [M ⁺]	422
Exact Mass [M+H] ⁺	423.1390

Characterization & Intelligence

The following information was compiled in April 2023 and is subject to change as new research is conducted and as new information becomes available:

Description: ADB-5'Br-PINACA is a novel synthetic cannabinoid which is structurally related to ADB-5'Br-BINACA (or ADB-5'Br-BUTINACA), ADB-PINACA, and other similar indazole carboxamides. In May 2022, ADB-5'Br-BINACA was detected for the first time in the United States. Due to its novelty, little information is currently known about ADB-5'Br-PINACA.

Sample Source: Center of Forensic & Digital Science Abu Dhabi Judicial Department

Sample Appearance: The evidence appeared as a small square paper with letters printed on it. The sample was submitted to and first analyzed by the Center of Forensic & Digital Science in September 2022.

Pharmacology: The activity and potency of ADB-5'Br-PINACA are unknown. Based on structural similarity, ADB-5'Br-PINACA is expected to have similar effects to other synthetic cannabinoids.

Toxicology: ADB-5'Br-PINACA has not been detected in toxicology samples at the CFSRE.

Drug Materials: ADB-5'Br-PINACA has been identified in one drug material (Abu Dhabi) at the CFSRE.

Demographics / Geographics: No information is available at this time.

Legal Status: ADB-5'Br-PINACA is not explicitly scheduled in the United States. ADB-5'Br-PINACA appears to fall outside the scope of the national class-wide scheduling action imposed by China in July 2021.

References:

- ▶ Cayman Chemical: <https://www.caymanchem.com/product/37758/adb-5'br-pinaca>
- ▶ National Forensic Laboratory (Slovenia): https://www.policija.si/apps/nfl_response_web/0_Analytical_Reports_final/ADB-5Br-PINACA-ID-3224-22_report.pdf

About: In collaboration with medical examiner and coroner offices, crime laboratories, clinical partners, and other stakeholders, the Center for Forensic Science Research and Education (CFSRE) is documenting first confirmations of NPS through analysis of drug materials and/or toxicology samples. These reports are generated using comprehensive analytical techniques (e.g., GC-MS, LC-QTOF-MS, NMR) and include available information about the new substances identified at the time of reporting, as well as the analytical data generated during testing. Our new drug monographs are intended to assist with the rapid identification of NPS in forensic casework and related disciplines, and should not be used for confirmatory purposes alone.

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

Acknowledgements: This report was prepared by Alex J. Krotulski, Osama Abdallah Sharif Alyamani, Maha Elgid, Sara E. Walton, Josh DeBord, Melissa F. Fogarty, and Barry K. Logan at the Center for Forensic Science Research and Education (CFSRE) at the Fredric Rieders Family Foundation. The authors acknowledge scientists at the CFSRE and Center of Forensic & Digital Science Abu Dhabi Judicial Department for their involvements and contributions. For more information, contact npsdiscovery@cfsre.org or visit www.npsdiscovery.org.

Funding: CFSRE's NPS Discovery is supported by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice (Award Number 15PNIJ-22-CG-04434-MUMU, "Implementation of NPS Discovery – An Early Warning System for Novel Drug Intelligence, Surveillance, Monitoring, Response, and Forecasting using Drug Materials and Toxicology Populations in the US"). The opinions, findings, conclusions and/or recommendations expressed in this publication are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice.

Suggested Citation: Krotulski, AJ; Alyamani, OAS; Elgid, M; Walton, SE; DeBord, J; Fogarty, MF; Logan, BK. (2023) *ADB-5'Br-PINACA—NPS Discovery New Drug Monograph*, Center for Forensic Science Research and Education, United States.

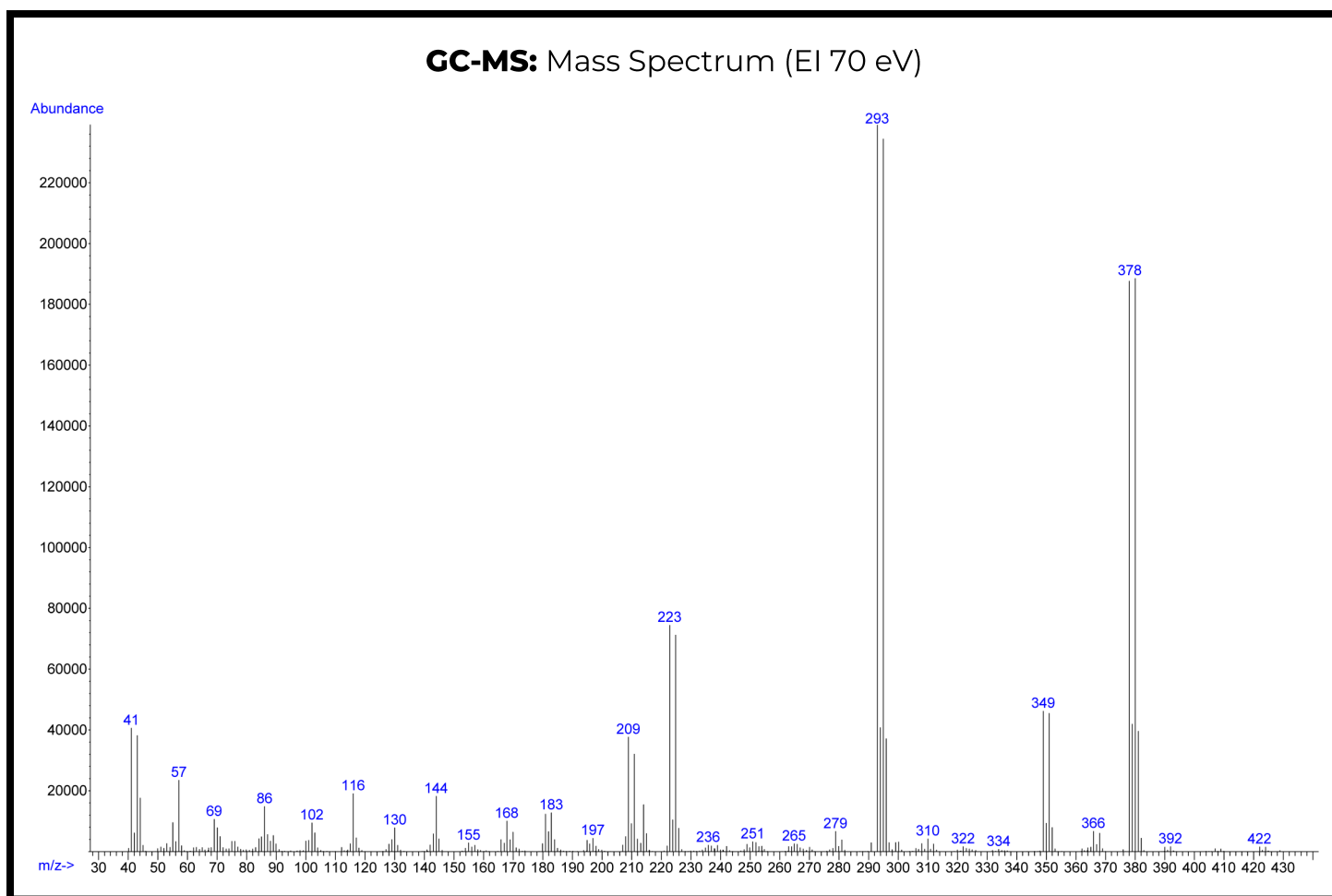
Gas Chromatography Mass Spectrometry (GC-MS)

Laboratory: Center for Forensic Science Research and Education (CFSRE, Willow Grove, PA, USA)

Instrument: Agilent 5975 Series GC/MSD

Methods: www.cfsre.org/nps-discovery/monographs

Sample Preparation: Dilution in methanol



Confirmation Using Drug Standard: Reference material (Batch: 0660282-2) was purchased from Cayman Chemical (Ann Arbor, MI, USA). The analyte was confirmed to be ADB-5'Br-PINACA based on retention time (sample: 8.544 min vs. standard: 8.540 min) and mass spectral data comparisons.

Liquid Chromatography Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS)

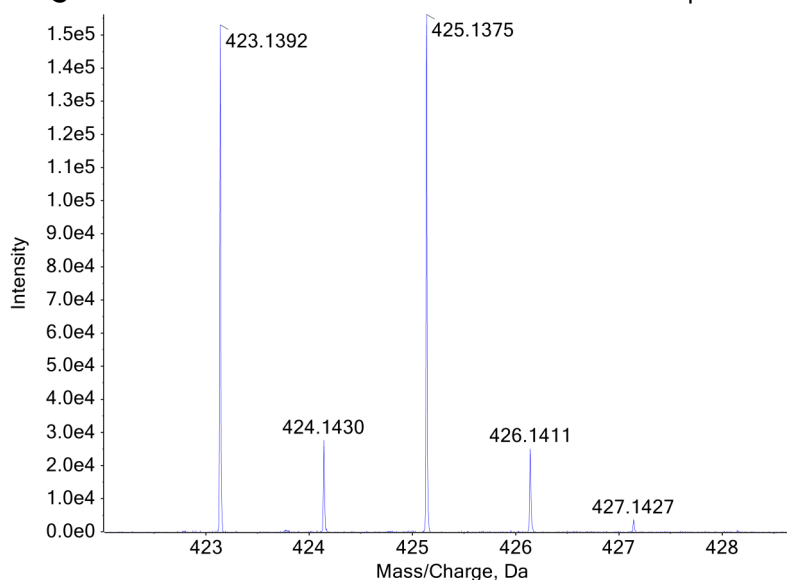
Laboratory: Center for Forensic Science Research and Education (CFSRE, Willow Grove, PA, USA)

Instrument: Sciex TripleTOF® 5600+ LC-QTOF-MS

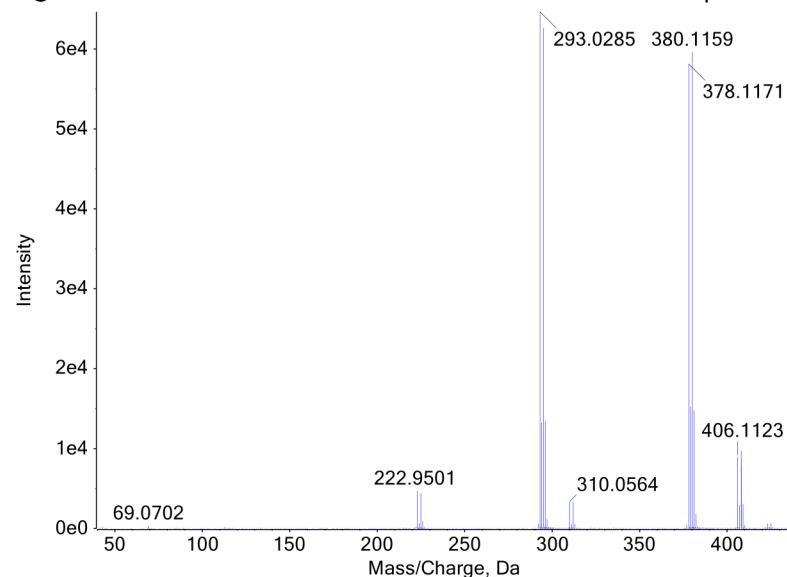
Methods: www.cfsre.org/nps-discovery/monographs

Sample Preparation: Dilution in mobile phase

LC-QTOF-MS: TOF-MS Precursor Ion Mass Spectrum



LC-QTOF-MS: TOF-MS/MS Product Ion Mass Spectrum



Confirmation Using Drug Standard: Reference material (Batch: 0660282-2) was purchased from Cayman Chemical (Ann Arbor, MI, USA). The analyte was confirmed to be ADB-5'Br-PINACA based on retention time (sample: 9.98 min vs. standard: 9.93 min) and mass spectral data comparisons.