

## 5F-ADB (5F-MDMB-PINACA)

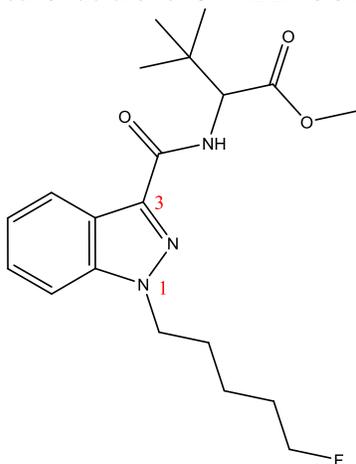
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### Introduction:

In recent years various products containing synthetic cannabinoids (e.g., JWH-018, UR-144, AKB48, etc.) laced on plant material have been encountered by law enforcement and are smoked for their psychoactive effects. In response to Federal control of these synthetic cannabinoids, a transition to new synthetic cannabinoids laced on plant material has been observed. 5F-ADB is a synthetic cannabinoid recently encountered on the designer drug market and has been found laced on plant material and marketed under the guise of herbal incense products.

### Chemistry:

The chemical structure for 5F-ADB<sup>1</sup> is shown below.



5F-ADB is classified as an indazole. 5F-ADB is based on an indazole core structure, where the 1- and 3-positions of the indazole ring system are substituted. The 1-position of 5F-ADB is substituted with a linear five carbon chain terminated with a fluorine (F) atom. The 3-position is substituted with an amide linker, and the nitrogen atom (N) of this linker is further substituted with a 1-methoxy-3,3-dimethyl-1-oxobutan-2-yl group.

### Pharmacology:

Data from preclinical studies show that 5F-ADB binds to and acts as an agonist at the CB1 receptor. In drug discrimination studies in rats, 5F-ADB generalized to delta-9-tetrahydrocannabinol (THC), i.e. produced subjective effects similar to those of THC.

There are no published studies on the safety of 5F-ADB for human use.

### Licit Uses:

There are no commercial or medical uses for 5F-ADB.

### Illicit Uses:

5F-ADB has been encountered in numerous synthetic cannabinoid products that are smoked for their psychoactive effects.

### User Population:

Information on user population in the U.S. is limited. 5F-ADB abuse is not monitored by any national drug abuse surveys. Poison control centers continue to report adverse health effects in response to the abuse of synthetic cannabinoids and this abuse is both a public health and safety concern. Serious adverse effects including death have been reported following the use of 5F-ADB.

### Illicit Distribution:

The National Forensic Laboratory Information System (NFLIS), a system that collects drug analysis information from state and local forensic laboratories, contain 19,568 reports for 5F-ADB between 2014 and 2018.

### Control Status

5F-ADB is a Schedule I controlled substance under the Federal Controlled Substances Act.

Comments and additional information are welcomed by the Drug and Chemical Evaluation Section; Fax 202-353-1263, telephone 202-307-7183, or E-mail [DPE@usdoj.gov](mailto:DPE@usdoj.gov).

<sup>1</sup> Chemical name: Methyl 2-(1-(5-fluoropentyl)-1H-indazole-3-carboxamido)-3,3-dimethylbutanoate