

AB-FUBINACA

February 2020

Introduction:

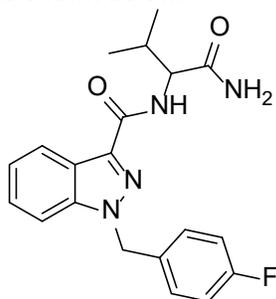
Various synthetic cannabinoids (e.g., JWH-018, UR-144, AKB48, etc.) laced on plant material have been encountered by law enforcement in recent years. These products laced with synthetic cannabinoids are smoked for their psychoactive effects. In response to State and Federal control of these synthetic cannabinoids, a transition to new synthetic cannabinoids laced on plant material has been observed. AB-FUBINACA 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.

Licit Uses:

AB-FUBINACA was previously reported in a patent by Pfizer in 2009. There are no commercial or medical uses for this substance.

Chemistry:

AB-FUBINACA is also known as *N*-(1-amino-3-methyl-1-oxobutan-2-yl)-1-(4-fluorobenzyl)-1*H*-indazole-3-carboxamide. It has the molecular formula $C_{20}H_{21}FN_4O_2$ and molecular weight 368.4 g/mol. The chemical structure for AB-FUBINACA is shown below.



Pharmacology:

A patent submitted by Pfizer in 2009 demonstrates that AB-FUBINACA has a high affinity and functions as an agonist to the CB1 receptor. Studies were conducted by contract researchers with the National Institute on Drug Abuse (NIDA). These studies show that AB-FUBINACA also binds to and is an agonist at the CB1 receptor. In drug discrimination studies in rats, AB-FUBINACA generalized to Δ^9 -THC, i.e. produced subjective effects similar to those of Δ^9 -THC.

There are no published studies on the safety of AB-FUBINACA for human use.

Illicit Uses:

AB-FUBINACA 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. AB-FUBINACA 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.

Illicit Distribution:

The System to Retrieve Information from Drug Evidence (STRIDE/STARLiMS), a federal database for the seized drugs analyzed by DEA forensic laboratories, and the National Forensic Laboratory Information System (NFLIS), a system that collects drug analysis information from state, local, and federal forensic laboratories, contained 74 drug reports in 2018 and 834 reports in 2017, a substantial decrease from 6,280 reports in 2014, 2,646 in 2015, and 1,543 in 2016. Bulk quantities and plant material (synthetic cannabinoid products) laced with AB-FUBINACA have been encountered.

Control Status

AB-FUBINACA 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 571-362-4250, Telephone 571-362-3249, or E-mail DPE@usdoj.gov.