

EMB-FUBINACA (AEB-FUBINACA; FUB-AEB)

Introduction:

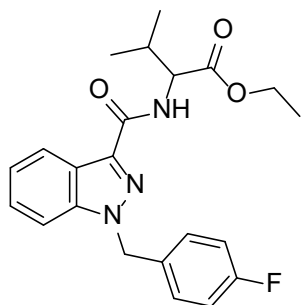
Synthetic cannabinoids are designer drugs created to mimic the psychoactive effects of Δ^9 -tetrahydrocannabinol (THC), the primary active substance in cannabis, and have increasingly been linked to neurotoxic effects and widespread bodily harm. Synthetic cannabinoids emerged onto the designer drug market in the early/mid 2000s. Originally, various products containing synthetic cannabinoids (e.g., JWH-018) laced onto plant material had been encountered by law enforcement, leading to the control of cannabimimetic agents as a class, if the substance met structural and pharmacological criteria. In response to this federal control, a new generation of synthetic cannabinoids outside the cannabimimetic agent definition has emerged, including EMB-FUBINACA.

Licit Uses:

EMB-FUBINACA has no commercial or accepted medical uses in the United States.

Chemistry:

EMB-FUBINACA is chemical known as ethyl 2-(1-(4-fluorobenzyl)-1*H*-indazole-3-carboxamido)-3-methylbutanoate. The CAS number for EMB-FUBINACA is 2365470-94-4. The chemical structure for EMB-FUBINACA is shown below:



Pharmacology:

Data from preclinical studies show that EMB-FUBINACA binds to and acts as an agonist at the CB1 receptor. In drug discrimination studies in rats, EMB-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 EMB-FUBINACA for human use. Ingestion of synthetic cannabinoids have been shown to cause serious adverse effects including nausea, vomiting, seizures,

tachycardia, multi-organ failure, and/or death.

Illicit Uses:

Recreational use of synthetic cannabinoids has been reported as an attempt to circumvent legal restrictions regarding marijuana. EMB-FUBINACA has been encountered in numerous synthetic cannabinoid products that are smoked for their psychoactive effects. These products include synthetic cannabinoid laced plant material that is marketed under the guise of herbal incense products, as well as liquid concentrates for use in electronic cigarettes (vapes), often marketed and sold as “synthetic marijuana.”

Poison control centers continue to report adverse health effects in response to the abuse of synthetic cannabinoids.

User Population:

Information on user population in the United States is limited; however, studies suggest that adolescents and young adults (15 – 24 years old) may be the most likely users of synthetic cannabinoid products.

Illicit Distribution:

DEA’s National Forensic Laboratory Information System (NFLIS) Drug database collects scientifically verified data on drug items and cases submitted to and analyzed by participating federal, state, and local forensic drug laboratories. NFLIS-Drug received 212 reports of EMB-FUBINACA since its first report in 2015.

Control Status:

EMB-FUBINACA is a positional isomer of MDMB-FUBINACA, as defined by 21 CFR § 1300.01, and is therefore controlled in schedule I of the Controlled Substances Act, as of April 10, 2017.

Comments and additional information are welcomed by the Drug and Chemical Evaluation Section; Fax 571-362-4250, Telephone 571-362-3249, or Email DPE@dea.gov.