

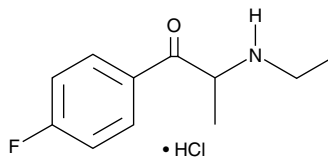
Product Information



4-Fluoroethcathinone (hydrochloride)

Item No. 11231

Formal Name: 2-(ethylamino)-1-(4-fluorophenyl)propan-1-one, monohydrochloride
Synonym: 4-FEC
MF: C₁₁H₁₄FNO • HCl
FW: 231.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 204, 251 nm



Laboratory Procedures

For long term storage, we suggest that 4-fluoroethcathinone (4-FEC) (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

4-FEC (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-FEC (hydrochloride) in the solvent of choice. 4-FEC (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 4-FEC (hydrochloride) in ethanol is approximately 2 mg/ml and approximately 5 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 4-FEC (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 4-FEC (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

4-Fluoromethcathinone (4-FMC) is a psychoactive compound that has recently been identified in plant feeder capsules and recreational drugs.¹⁻³ 4-FEC is a structural analog of 4-FMC, with an ethyl group replacing the amino terminal methyl group. The physiological and toxicological properties of this compound have not been characterized. 4-FEC is intended to be used for research and forensic applications.

References

1. Archer, R.P. Fluoromethcathinone, a new substance of abuse. *Forensic Sci. Int.* **185**, 10-20 (2009).
2. Brandt, S.D., Freeman, S., Sumnall, H.R., *et al.* Analysis of NRG 'legal highs' in the UK: Identification and formation of novel cathinones. *Drug Test. Anal.* (2010).
3. Kikura-Hanajiri, R., Uchiyama, N., and Goda, Y. Survey of current trends in the abuse of psychotropic substances and plants in Japan. *Leg. Med. (Tokyo)* **13(3)**, 109-15 (2011).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11231

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

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