3,4-Dimethylmethcathinone metabolite (hydrochloride)
((±)-Ephedrine stereochemistry)

Item No. 9001431

CAS Registry No.: 4865-61-6
Formal Name: erythro-3,4-dimethyl-α-[1-(methylamino)ethyl]-benzyl alcohol, monohydrochloride
Synonym: 3,4-DMMC metabolite
MF: C_{12}H_{19}NO • HCl
FW: 229.8
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/VIS: \( \lambda_{\text{max}} = 214 \text{ nm} \)

Laboratory Procedures

For long term storage, we suggest that 3,4-Dimethylmethcathinone (3,4-DMMC) metabolite (hydrochloride) ((±)-ephedrine stereochemistry) be stored as supplied at -20°C. It should be stable for at least two years.

3,4-DMMC metabolite (hydrochloride) ((±)-ephedrine stereochemistry) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3,4-DMMC metabolite (hydrochloride) ((±)-ephedrine stereochemistry) in the solvent of choice. 3,4-DMMC metabolite (hydrochloride) ((±)-ephedrine stereochemistry) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 3,4-DMMC metabolite (hydrochloride) ((±)-ephedrine stereochemistry) in ethanol is approximately 25 mg/ml and approximately 20 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 3,4-DMMC metabolite (hydrochloride) ((±)-ephedrine stereochemistry) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 3,4-DMMC metabolite (hydrochloride) ((±)-ephedrine stereochemistry) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

3,4-DMMC (Item No. 9001098) is a potential designer drug with combined features of amphetamines, cathinones, and phenethylamines. It is structurally related to 4-methylmethcathinone, a psychoactive compound that has been identified in products sold as bath salts and plant food.1-3 This metabolite of 3,4-DMMC features conversion of the β-keto group to β-hydroxy and is an enantiomeric mixture of the R,S and S,R orientations at carbons one and two, as in ephedrine. The physiological and toxicological properties of this compound have not been elucidated. This product is intended for research and forensic applications.

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/9001431