

Certificate of Analysis

www.tocris.com

Product Name: Cocaine hydrochloride

Catalog No.: 2833

Batch No.: 3

CAS Number: 53-21-4

EC Number: 200-167-1

IUPAC Name: 3β-Hydroxy-1αH,5αH-tropane-2β-carboxylic acid methyl ester benzoate hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₁NO₄.HCl

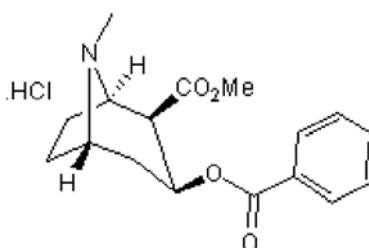
Batch Molecular Weight: 339.81

Physical Appearance: White crystalline solid

Solubility: water to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >99% purity

Optical Rotation: [α]_D = -72.2 (Concentration = 2.5, Solvent = Water)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

Product Information

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IUPAC Name: 3β-Hydroxy-1αH,5αH-tropane-2β-carboxylic acid methyl ester benzoate hydrochloride

Description:

Competitive inhibitor of monoamine neurotransmitter transporters. Inhibits dopamine (DAT), serotonin (SERT) and noradrenalin (NET) transporters with K_i values are 267, 392 and 872 nM respectively. Psychostimulant.

Physical and Chemical Properties:

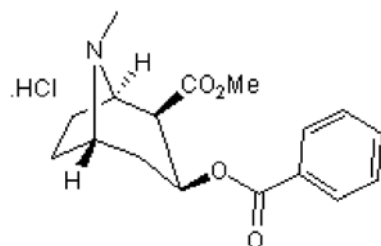
Batch Molecular Formula: $C_{17}H_{21}NO_4 \cdot HCl$

Batch Molecular Weight: 339.81

Physical Appearance: White crystalline solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Other Information:

INFORMATION FOR CUSTOMERS IN THE UK ONLY

This product is a Schedule 2 Home Office controlled substance and customers in the UK are required to hold the relevant licence or be exempt from restrictions in order to purchase and possess this material.

References:

Torres *et al* (2003) Plasma membrane monoamine transporters: structure, regulation and function. *Nat.Rev.Neurosci.* **4** 13. PMID: 12511858.

Fleckenstein *et al* (2000) Differential effects of stimulants on monoaminergic transporters: pharmacological consequences and implications for neurotoxicity. *Eur.J.Pharmacol.* **406** 1. PMID: 11011026.

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