

Certificate of Analysis

www.tocris.com

Product Name: Ketamine hydrochloride

Catalog No.: 3131

Batch No.: 1

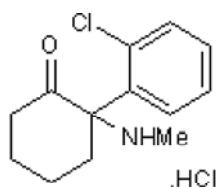
CAS Number: 1867-66-9

EC Number: 217-484-6

IUPAC Name: 2-(2-Chlorophenyl)-2-(methylamino)cyclohexanone hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₆ClNO.HCl
Batch Molecular Weight: 274.19
Physical Appearance: White crystalline solid
Solubility: water to 100 mM
Storage: Store at RT
Batch Molecular Structure:



C₁₃H₁₇Cl₂NO
Mol. Wt.: 274.19

2. ANALYTICAL DATA

HPLC: Shows >99.9% purity

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

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CAS Number: 1867-66-9

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IUPAC Name: 2-(2-Chlorophenyl)-2-(methylamino)cyclohexanone hydrochloride

Description:

Ketamine hydrochloride is a non-competitive NMDA receptor antagonist (EC₅₀ values are 13.6 and 17.6 μM for GluN1/GluN2A (formally NR1 and NR2A, respectively) and GluN1/GluN2B (formally NR1 and NR2B, respectively) subunit combinations respectively). Dissociative anesthetic. S-enantiomer and Active metabolite also available. Please refer to IUPHAR Guide to Pharmacology for the most recent naming conventions. . Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

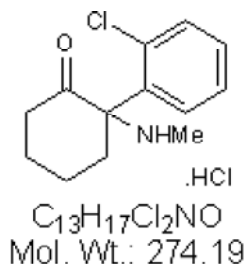
Batch Molecular Formula: C₁₃H₁₆ClNO.HCl

Batch Molecular Weight: 274.19

Physical Appearance: White crystalline solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Liu *et al* (2001) Modulation of NMDA receptor function by KA and magnesium: part I. *Anesth.Pharmacol.* **92** 1173.

Pallares *et al* (1995) Effects of KA, a noncompetitive NMDA antagonist, on the acquisition of the lever-press response in rats. *Physiol.Behav.* **57** 389. PMID: 7716221.

Anis *et al* (1983) The dissociative anaesthetics, KA and phencyclidine, selectively reduce excitation of central mammalian neurones by N-methyl-aspartate. *Br.J.Pharmacol.* **79** 565. PMID: 6317114.

Storage: Store at RT

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.

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