



Certificate of Analysis

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Product Name: (±)-U-50488 hydrochloride Catalog No.: 0495 Batch No.: 5

CAS Number: 67197-96-0

IUPAC Name: trans-(±)-3,4-Dichloro-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]benzeneacetamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₆Cl₂N₂O.HCl.H₂O

Batch Molecular Weight:423.81Physical Appearance:White solidSolubility:water to 25 mMStorage:Store at RT

Batch Molecular Structure:

(and enantiomer)

2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 53.85 6.9 6.61 Found 53.7 6.96 6.56



Product Information

Print Date: Jun 19th 2023

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CAS Number: 67197-96-0

IUPAC Name: trans-(±)-3,4-Dichloro-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]benzeneacetamide hydrochloride

Description:

(±)-U-50488 hydrochloride is a selective κ-opioid agonist. At higher concentrations blocks Na⁺ channels. (-)-enantiomer and (+)-enantiomer also available.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₉H₂₆Cl₂N₂O.HCl.H₂O

Batch Molecular Weight: 423.81 Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:

(and enantiomer)

Storage: Store at RT

Solubility & Usage Info:

water to 25 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

References:

Su et al (1998) Blockade of the development of mor. tolerance by U-50,488, an AVP antagonist or MK 801 in the rat hippocampal slice. Br.J.Pharmacol. **123** 625. PMID: 9517380.

Pao-Luh Tao et al (1994) U-50,488 blocks the development of mor. tolerance and dependence at a very low dose in guinea pigs. Eur.J.Pharmacol. **256** 281. PMID: 8045272.

Suarez-Roca and Maixner (1993) Activation of *kappa* opioid receptors by U-50488H and mor. enhances the release of substance P from rat trigeminal nucleus slices. J.Pharmacol.Exp.Ther. **264** 648. PMID: 7679733.

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