



Certificate of Analysis

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Product Name: (-)-U-50488 hydrochloride Catalog No.: 0496 Batch No.: 6

CAS Number: 114528-79-9

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: 423.81 **Physical Appearance:** White solid

Solubility: water to 20 mM

DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 100% purity
Chiral HPLC: Shows 100% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 53.85 6.9 6.61 Found 52.94 7 6.29

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Product Information

Print Date: Mar 19th 2025

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CAS Number: 114528-79-9

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

Description:

(-)-U-50488 hydrochloride is a more active enantiomer of (±)-U-50488. Racemate 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:

Storage: Store at RT

Solubility & Usage Info:

water to 20 mM DMSO to 100 mM

Solutions in water may appear hazy or as a fine suspension.

Catalog No.: 0496

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:

Zhu et al (1998) Agonist-induced desensitization and down-regulation of the human kappa opioid receptor expressed in chinese hamster ovary cells. J.Pharmacol.Exp.Ther. **285** 28. PMID: 9535991.

Morrone *et al* (1993) Withdrawal contractures of guinea-pig isolated ileum after acute activation of κ opioid receptors. Br.J.Pharmacol. *109* 48. PMID: 8388301.

Reddy and Bhargava (1993) Effect of chronic administration of U-50,488H, a kappa opioid receptor agonist on central DA (D₂) receptors of the rat. Eur.J.Pharmacol. **235** 23. PMID: 8390939.

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