

Certificate of Analysis

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Product Name: Naltrindole hydrochloride

Catalog No.: 0740

Batch No.: 14

CAS Number: 111469-81-9

IUPAC Name: 17-(Cyclopropylmethyl)-6,7-dehydro-4,5 α -epoxy-3,14-dihydroxy-6,7-2',3'-indolomorphinan hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₆H₂₆N₂O₃.HCl.1 $\frac{3}{4}$ H₂O

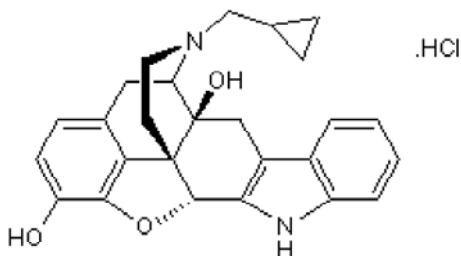
Batch Molecular Weight: 482.48

Physical Appearance: Beige solid

Solubility: water to 25 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Chloroform:Methanol:Ammonia soln. [10:1:0.1])

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.72	6.37	5.81
Found	64.78	6.4	5.86

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

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Description:

Highly selective non-peptide δ opioid antagonist, showing 223- and 346-fold greater activity at δ than at μ and κ opioid receptors.

Physical and Chemical Properties:

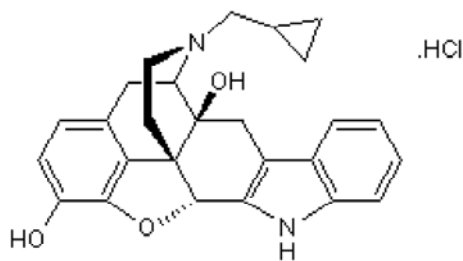
Batch Molecular Formula: C₂₆H₂₆N₂O₃·HCl·1 $\frac{3}{4}$ H₂O

Batch Molecular Weight: 482.48

Physical Appearance: Beige solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 25 mM

DMSO 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 USA ONLY

This product is a Schedule II DEA controlled substance and customers in the USA are required to hold a controlled substance registration in order to purchase and possess this material (in accordance with Title 21 code of federal regulations part 1300 to end).

Licensing Information:

Sold with the permission of the University of Minnesota.

References:

Shippenberg and Heidbreder (1995) The δ -opioid receptor antagonist naltrindole prevents sensitization to the conditioned rewarding effects of cocaine. *Eur.J.Pharmacol.* **280** 55. PMID: 7498254.

Ossipov et al (1994) Naltrindole, an opioid δ antagonist, blocks the enhancement of morphine-antinociception induced by a CCK_B antagonist in the rat. *Neurosci. Lett.* **181** 9. PMID: 7898778.

Portoghese et al (1990) Design of peptidomimetic δ opioid receptor antagonists using the message-address concept. *J.Med.Chem.* **33** 1714. PMID: 2160538.

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