

Product Name: Nalmefene d3

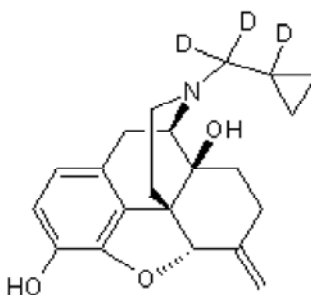
Catalog No.: 3971

Batch No.: 1

IUPAC Name: (5 α)-17-(d₃-Cyclopropylmethyl)-4,5-epoxy-6-methylenemorphinan-3,14-diol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₂D₃NO₃
Batch Molecular Weight: 342.45
Physical Appearance: Off-white solid
Solubility: Soluble in DMSO
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Chloroform:Methanol [95:5])
HPLC: Shows >98.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

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

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Description:

Deuterated nalmefene. Nalmefene also available.

Physical and Chemical Properties:

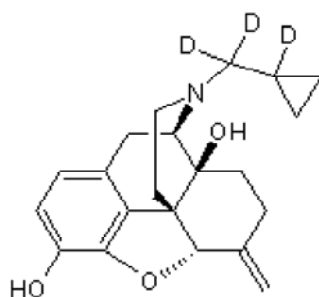
Batch Molecular Formula: C₂₁H₂₂D₃NO₃

Batch Molecular Weight: 342.45

Physical Appearance: Off-white solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

Soluble in DMSO

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Isotopic purity is 98.6% D

References:

Osborn *et al* (2010) In vivo characterization of the opioid antagonist nalmefene in mice. *Life Sci.* **86** 624. PMID: 20159022.

Wang *et al* (1998) Nalmefene: a long-acting opioid antagonist. Clinical applications in emergency medicine. *J.Emerg.Med.* **16** 471. PMID: 9610980.

Michel *et al* (1985) Binding of a new opiate antagonist, nalmefene, to rat brain membranes. *Methods Find.Exp.Clin.Pharmacol.* **7** 175. PMID: 2991678.

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