



## **Certificate of Analysis**

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Product Name: Cyprodime hydrochloride Catalog No.: 2601 Batch No.: 5

CAS Number: 2387505-50-0

IUPAC Name: 17-(Cyclopropylmethyl)-4,14-dimethoxymorphinan-6-one hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>22</sub>H<sub>29</sub>NO<sub>3</sub>.HCl.½H<sub>2</sub>O

Batch Molecular Weight: 400.94

Physical Appearance: White solid

**Solubility:** DMSO to 100 mM

ethanol to 100 mM

Storage: Desiccate at +4°C

**Batch Molecular Structure:** 

### 2. ANALYTICAL DATA

TLC: R<sub>f</sub> = 0.45 (Dichloromethane:Methanol [9:1])

HPLC: Shows >99.0% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 65.9 7.79 3.49 Found 65.82 7.8 3.52

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



### **Product Information**

Print Date: Jan 19th 2023

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IUPAC Name: 17-(Cyclopropylmethyl)-4,14-dimethoxymorphinan-6-one hydrochloride

#### **Description:**

Cyprodime hydrochloride is a selective  $\mu\text{-opioid}$  receptor antagonist ( $K_i$  values are 5.4, 244.6 and 2187 nM for  $\mu\text{-}, \, \delta\text{-}$  and  $\kappa\text{-opioid}$  receptors respectively). Reduces levodopa-induced dyskinesia in the MPTP-lesioned primate model of Parkinson's disease.

#### **Physical and Chemical Properties:**

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Batch Molecular Weight: 400.94 Physical Appearance: White solid

# Minimum Purity: ≥98%

### **Batch Molecular Structure:**

Storage: Desiccate at +4°C

### Solubility & Usage Info:

DMSO to 100 mM ethanol 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).

Catalog No.: 2601

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.

### References:

Henry et al (2001) μ- and δ-opioid receptor antagonists reduce levodopa-induced dyskinesia in the MPTP-lesioned primate model of Parkinson's disease. Exp.Neurol. 171 139. PMID: 11520128.

**Marki** *et al* (1999) μ-opioid receptor specific antagonist cyprodime: characterization by in vitro radioligand and [35S]GTPγs binding assays. Eur.J.Pharmacol. **383** 209. PMID: 10585536.

**Schmidhammer** *et al* (1995) Synthesis and biological evaluation of 14-alkoxymorphinans. 11. 3-hydroxycyprodime and analogues: opioid antagonist profile in comparison to cyprodime. J.Med.Chem. *38* 3071. PMID: 7636870.

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