

**Product Name:** Cyprodime hydrochloride

**Catalog No.:** 2601

**Batch No.:** 5

**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

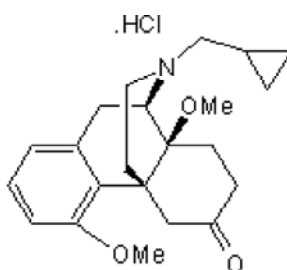
**Batch Molecular Weight:** 400.94

**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 >99.1% 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

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

**Description:**

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

**Physical and Chemical Properties:**

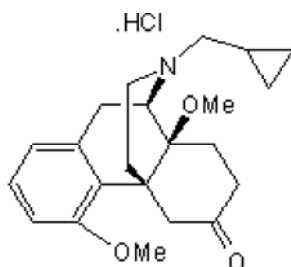
Batch Molecular Formula:  $C_{22}H_{29}NO_3 \cdot HCl \cdot \frac{1}{2}H_2O$

Batch Molecular Weight: 400.94

Physical Appearance: White solid

**Minimum Purity:**  $\geq 98\%$

**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).

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)**  $\mu$ - and  $\delta$ -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)**  $\mu$ -opioid receptor specific antagonist cyprodime: characterization by in vitro radioligand and [<sup>35</sup>S]GTP $\gamma$ S 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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