

# Certificate of Analysis

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**Product Name:** (±)-PPCC oxalate

**Catalog No.:** 3870

**Batch No.:** 1

CAS Number: 932736-91-9

IUPAC Name: (S\*,R\*)-2-[(4-Hydroxy-4-phenyl-1-piperidinyl)methyl]-1-(4-methylphenyl)-cyclopropanecarboxylic acid methyl ester

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>24</sub>H<sub>29</sub>NO<sub>3</sub>·C<sub>2</sub>H<sub>2</sub>O<sub>4</sub>

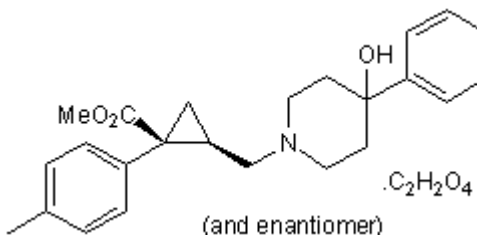
**Batch Molecular Weight:** 469.53

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM  
ethanol to 10 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	66.51	6.65	2.98
Found	66.52	6.59	3.19

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**Description:**

Selective sigma ( $\sigma$ ) receptor ligand. Displays high affinity for  $\sigma_1$ ; also binds at  $\sigma_2$  sites ( $K_i = 1.5$  nM and 50.8 nM respectively). Selective over a range of receptor types including dopaminergic and muscarinic receptors, DAT and SERT.

**Physical and Chemical Properties:**

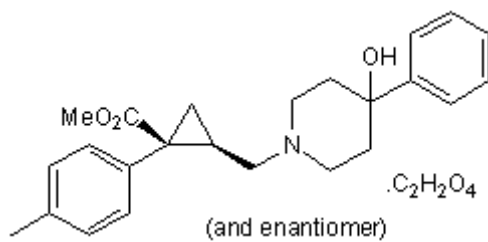
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Batch Molecular Weight: 469.53

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol to 10 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:**

**Prezzavento et al (2007)** Novel sigma receptor ligands: synthesis and biological profile. *J.Med.Chem.* **50** 951. PMID: 17328523.

**Prezzavento et al (2008)** A new sigma ligand, (±)-PPCC, antagonizes kappa opioid receptor-mediated antinociceptive effect. *Life Sci.* **82** 549. PMID: 18261749.

**Antonini et al (2009)** Anti-amnesic properties of (±)-PPCC, a novel sigma receptor ligand, on cognitive dysfunction induced by selective cholinergic lesion in rats. *J.Neurochem.* **109** 744. PMID: 19245662.

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