

**Product Name:** Perlapine

**Catalog No.:** 5549

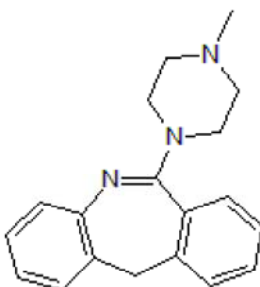
**Batch No.:** 1

CAS Number: 1977-11-3

IUPAC Name: 6-(4-Methyl-1-piperazinyl)-11*H*-dibenz[*b,e*]azepine

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>19</sub>H<sub>21</sub>N<sub>3</sub>  
**Batch Molecular Weight:** 291.39  
**Physical Appearance:** Pale yellow solid  
**Solubility:** DMSO to 50 mM  
 ethanol to 50 mM  
 water to 5 mM with gentle warming  
**Storage:** Store at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.41 (Dichloromethane:Methanol [95:5])  
**HPLC:** Shows 99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	78.32	7.26	14.42
Found	78.47	7.32	14.37

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

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**Description:**

Potent muscarinic DREADD agonist (pEC<sub>50</sub> values are 8.38, 8.08 and 7.27 for hM<sub>1</sub>D<sub>q</sub>, hM<sub>3</sub>D<sub>q</sub> and hM<sub>4</sub>D<sub>i</sub> in vitro, respectively). Exhibits >10,000-fold selectivity for hM<sub>3</sub>D<sub>q</sub> over hM<sub>3</sub> receptors.

**Physical and Chemical Properties:**

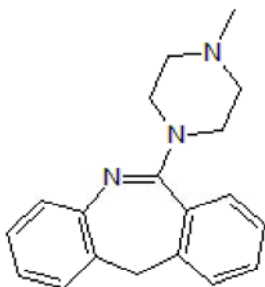
Batch Molecular Formula: C<sub>19</sub>H<sub>21</sub>N<sub>3</sub>

Batch Molecular Weight: 291.39

Physical Appearance: Pale yellow solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 50 mM

ethanol to 50 mM

water to 5 mM with gentle warming

**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:**

**Thompson et al** (2018) DREADD agonist 21 (C21) is an effective agonist for muscarinic-based DREADDs *in vitro* and *in vivo*. ACS Pharmacol.Transl.Sci..

**Chen et al** (2015) The first structure-activity relationship studies for designer receptors exclusively activated by designer drugs. ACS Chem.Neurosci. **6** 476. PMID: 25587888.

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