

Product Name: MDL 100907

Catalog No.: 4173

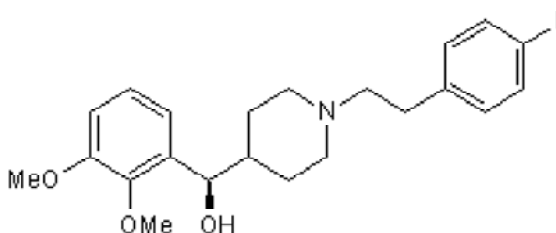
Batch No.: 3

CAS Number: 139290-65-6

IUPAC Name: (R)-(+)- α -(2,3-Dimethoxyphenyl)-1-[2-(4-fluorophenyl)ethyl]-4-piperinemethanol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₂₈FNO₃
Batch Molecular Weight: 373.46
Physical Appearance: White solid
Solubility: 1eq. HCl to 50 mM
DMSO to 100 mM
ethanol to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Dichloromethen:Methanol:Ammonia soln. [90:9:1])
HPLC: Shows >99.8% purity
Chiral HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +18 (Concentration = 1, Solvent = Methanol)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.75	7.56	3.75
Found	70.86	7.64	3.76

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

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Description:

MDL 100907 is a potent and selective 5-HT_{2A} receptor antagonist (K_i = 0.36 nM, IC_{50} = 3.3-5.1 nM). MDL 100907 exhibits > 80-fold selectivity for 5-HT_{2A} over other serotonergic receptor subtypes. MDL 100907 is neuroprotective; protects cultured dopaminergic neurons from MPP⁺ induced toxicity. Antipsychotic agent in vivo

Physical and Chemical Properties:

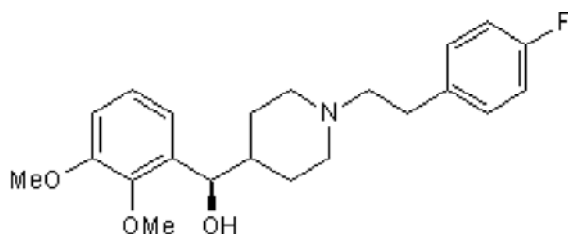
Batch Molecular Formula: C₂₂H₂₈FNO₃

Batch Molecular Weight: 373.46

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Ardayfio et al (2008) The 5-hydroxytryptamine_{2A} receptor antagonist R-(+)- α -(2,3-dimethoxyphenyl)-1-[2-(4-fluorophenyl)ethyl]-4-piperidinemethanol (M100907) attenuates impulsivity after both drug-induced disruption (dizocilpine) and enhancement (antidepressant dr J.Pharmacol.Exp.Ther. **327** 891. PMID: 18772320.

Kehne et al (1996) Preclinical characterization of the potential of the putative atypical antipsychotic MDL 100,907 as a potent 5-HT_{2A} antagonist with a favorable CNS safety profile. J.Pharmacol. **277** 968. PMID: 8627580.

Sorensen et al (1993) Characterization of the 5-HT₂ receptor antagonist MDL 100907 as a putative atypical antipsychotic: behavioral, electrophysiological and neurochemical studies. J.Pharmacol.Exp.Ther. **266** 684. PMID: 8102646.

Storage: Store at +4°C

Solubility & Usage Info:

1eq. HCl to 50 mM
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.

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