

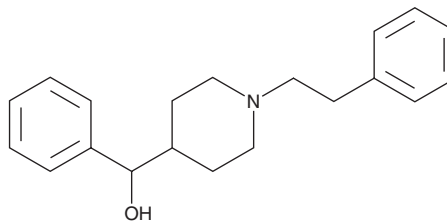
PRODUCT INFORMATION



MDL 11939

Item No. 21414

CAS Registry No.: 107703-78-6
Formal Name: α -phenyl-1-(2-phenylethyl)-4-piperidinemethanol
MF: C₂₀H₂₅NO
FW: 295.4
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MDL 11939 is supplied as a crystalline solid. A stock solution may be made by dissolving the MDL 11939 in the solvent of choice, which should be purged with an inert gas. MDL 11939 is soluble in organic solvents such as ethanol and DMSO. The solubility of MDL 11939 in these solvents is approximately 50 nM.

Description

MDL 11939 is a potent, orally bioavailable, and selective antagonist of the serotonin (5-HT) receptor subtype 5-HT_{2A} ($K_i = 6.06$ nM for the human receptor).¹ It is selective for the human 5-HT_{2A} receptor over human 5-HT_{2B} and 5-HT_{2C} and rat 5-HT_{2B} receptors (K_i s = 3,020, 1,020, and 4,700 nM, respectively), as well as 5-HT₁, 5-HT_{1A}, α_1 - and α_2 -adrenergic, dopamine D₂, muscarinic acetylcholine, histamine, and opiate receptors.^{1,2} MDL 11939 administered to rats prior to or following learned helplessness-induced stress prevents increases in acoustic startle response.³ MDL 11939 (10 mg/kg, i.v.) also has anti-arrhythmic activity in anesthetized dogs following myocardial infarction.⁴

References

1. Dudley, M.W., Wiech, N.L., Miller, F.P., *et al.* Pharmacological effects of MDL 11,939: A selective, centrally acting antagonist of 5-HT₂ receptors. *Drug Dev. Res.* **13(1)**, 29-43 (1988).
2. Wainscott, D.B., Lucaites, V.L., Kursar, J.D., *et al.* Pharmacologic characterization of the human 5-hydroxytryptamine_{2B} receptor: Evidence for species differences. *J. Pharmacol. Exp. Ther.* **276(2)**, 720-727 (1996).
3. Jiang, X., Zhang, Z.-j., Zhang, S., *et al.* 5-HT_{2A} receptor antagonism by MDL 11,939 during inescapable stress prevents subsequent exaggeration of acoustic startle response and reduced body weight in rats. *J. Psychopharmacol.* **25(2)**, 289-297 (2011).
4. Koerner, J.E. and Dage, R.C. Antiarrhythmic and electrophysiologic effects of MDL 11,939, a novel class III antiarrhythmic agent in anesthetized dogs. *J. Cardiovasc. Pharmacol.* **16(3)**, 383-393 (1990).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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