

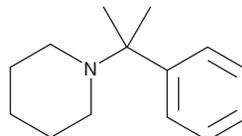
Product Information



2-Phenyl-2-(1-piperidinyl)propane

Item No. 17799

CAS Registry No.: 92321-29-4
Formal Name: 1-(1-methyl-1-phenylethyl)-piperidine
Synonyms: 1-(α,α -dimethylbenzyl)-Piperidine, PPP
MF: C₁₄H₂₁N
FW: 203.3
Purity: $\geq 95\%$
Stability: ≥ 1 year at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that 2-phenyl-2-(1-piperidinyl)propane be stored as supplied at -20°C. It should be stable for at least one year.

2-Phenyl-2-(1-piperidinyl)propane is supplied as a solution in ethanol. To change the solvent, simply evaporate the 2-phenyl-2-(1-piperidinyl)propane under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 2-phenyl-2-(1-piperidinyl)propane in these solvents is approximately 30 mg/ml.

2-Phenyl-2-(1-piperidinyl)propane is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 2-phenyl-2-(1-piperidinyl)propane should be diluted with the aqueous buffer of choice. 2-Phenyl-2-(1-piperidinyl)propane has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

2-Phenyl-2-(1-piperidinyl)propane is an analog of phencyclidine that acts as a mechanism-based inactivator of human cytochrome P450 (CYP) 2B6 ($K_i = 5.6 \mu\text{M}$; $\text{IC}_{50} = 5.1 \mu\text{M}$).¹ It is 15-fold more selective for inhibition of CYP2B6 over CYP2D6 and 40-60-fold more selective for CYP2B6 over CYP1A2, CYP2A6, CYP2Cs, and CYP3A.¹

Reference

1. Walsky, R.L. and Obach, R.S. A comparison of 2-phenyl-2-(1-piperidinyl)propane (PPP), 1,1',1"-phosphinothioylidynetrisaziridine (ThioTEPA), clopidogrel, and ticlopidine as selective inactivators of human cytochrome P450 2B6. *Drug Metab. Dispos.* **35(11)**, 2053-2059 (2007).

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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