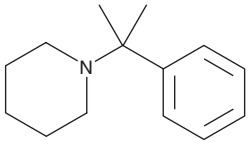
Product Information

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: $C_{14}H_{21}N$
FW: 203.3
Purity: ≥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 µM; IC_{50} = 5.1 µM).[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).

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com