Opipramol
Item No. 29471

CAS Registry No.: 315-72-0
Formal Name: 4-[3-(5H-dibenz[b,f]azepin-5-yl)propyl]-1-piperazineethanol
Synonyms: G-33040, GR-33040, NSC 169867
MF: C23H29N3O
FW: 363.5
Purity: ≥98%
UV/Vis.: λmax: 215, 257 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

Opipramol is supplied as a crystalline solid. A stock solution may be made by dissolving the opipramol in the solvent of choice, which should be purged with an inert gas. Opipramol is slightly soluble in acetonitrile, chloroform, and methanol.

Description

Opipramol is a sigma-1 (σ1) and σ2 receptor ligand. It binds to σ1 and σ2 receptors in guinea pig brain membrane preparations (IC50s = 7 and 56 nM, respectively). It is selective for σ1 and σ2 over histamine H2, dopamine D1, α1- and α2-adrenergic, and muscarinic M1 receptors (IC50s = 4,300, 900, 200, 6,100, and 3,300 nM, respectively) and has no effect on serotonin (5-HT) or norepinephrine uptake (IC50 = >10,000 nM for both), but does bind to histamine H1 and dopamine D2 receptors (IC50 = 12 and 120 nM, respectively), as well as the 5-HT receptor subtype 5-HT2 (IC50 = 120 nM). Opipramol (0.01 mg/kg) increases social interaction time in a social exploration test in rats, indicating anxiolytic-like activity. It also decreases immobility time in the forced swim test in rats, indicating antidepressant-like activity, when administered at a dose of 10 mg/kg.

Reference