

Certificate of Analysis

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Product Name: SCH 221510

Catalog No.: 3240

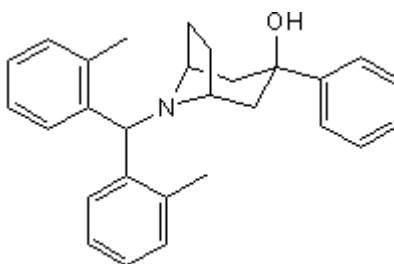
Batch No.: 2

CAS Number: 322473-89-2

IUPAC Name: 3-Endo-8-[bis(2-methylphenyl)methyl]-3-phenyl-8-azabicyclo[3.2.1]octan-3-ol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₈H₃₁NO
Batch Molecular Weight: 397.55
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.29 (Ethyl acetate:Petroleum ether [9:1])
HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	84.59	7.86	3.52
Found	84.72	7.88	3.59

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

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Description:

Potent and selective nociceptin opioid receptor (NOP) agonist (EC₅₀ values are 12, 693, 683 and 8071 nM, and K_i values are 0.3, 65, 131 and 2854 nM at NOP, μ-, κ- and δ-opioid receptors respectively). Exhibits anxiolytic-like activity at doses that have no effect on overt behaviors such as locomotion in vivo. Orally active.

Physical and Chemical Properties:

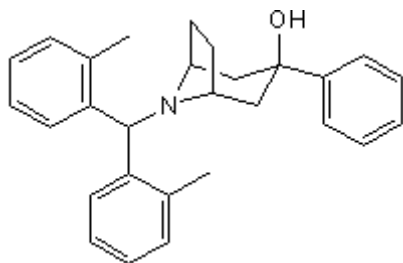
Batch Molecular Formula: C₂₈H₃₁NO

Batch Molecular Weight: 397.55

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Varty et al (2008) The anxiolytic-like effects of the novel, orally active nociceptin opioid receptor agonist 8-[bis(2-methylphenyl)methyl]-3-phenyl-8-azabicyclo[3.2.1]octan-3-ol (SCH 221510). *J.Pharmacol.Exp.Ther.* **326** 672. PMID: 18492950.

Lambert (2008) The nociceptin/orphanin FQ receptor: a target with broad therapeutic potential. *Nat.Rev.Drug Discov.* **7** 694. PMID: 18670432.

Yang et al (2009) Identification of 3-substituted *N*-benzhydryl-nortropane analogs as nociceptin receptor ligands for the management of cough and anxiety. *Bioorg.Med.Chem.Lett.* **19** 2482. PMID: 19332374.

Storage: Store at RT

Solubility & Usage Info:

DMSO 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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