

Product Name: PB 28 dihydrochloride

Catalog No.: 2562

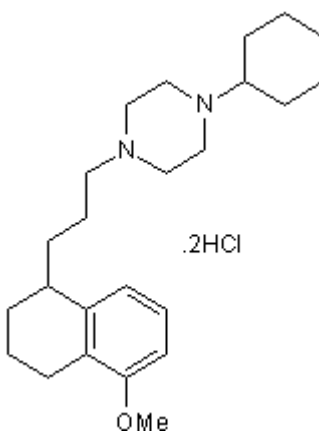
Batch No.: 1

CAS Number: 172907-03-8

IUPAC Name: 1-Cyclohexyl-4-[3-(1,2,3,4-tetrahydro-5-methoxy-1-naphthalenyl)propyl]piperazine dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₃₈N₂O.2HCl
Batch Molecular Weight: 443.5
Physical Appearance: White solid
Solubility: water to 20 mM with gentle warming
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.45 (Dichloromethane:Methanol [9:1])
Melting Point: At 260°C(dec)
HPLC: Shows >99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65	9.09	6.32
Found	64.9	9.33	6.27

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

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Description:

High affinity σ_2 receptor agonist (K_i values are 0.8 and 15.2 nM for σ_2 and σ_1 receptors respectively) that displays minimal affinity at other receptors. Inhibits electrically evoked twitch in guinea pig bladder and ileum (EC_{50} values are 2.62 and 3.96 μ M respectively). Displays antiproliferative and cytotoxic effects in SK-N-SH neuroblastoma and C6 glioma cells.

Physical and Chemical Properties:

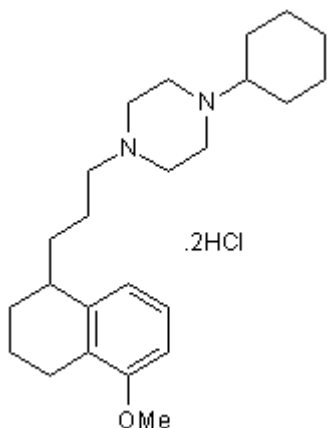
Batch Molecular Formula: $C_{24}H_{38}N_2O \cdot 2HCl$

Batch Molecular Weight: 443.5

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 20 mM with gentle warming

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.

References:

Berardi et al (1996) New σ and 5-HT_{1A} receptor ligands: ω -(tetralin-1-yl)-*n*-alkylamine derivatives. *J.Med.Chem.* **39** 176. PMID: 8568804.

Colabufo et al (2003) A new method for evaluating σ_2 ligand activity in the isolated guinea-pig bladder. *Naunyn-Schmied.Arch.Pharmacol.* **368** 106.

Colabufo et al (2004) Antiproliferative and cytotoxic effects of some σ_2 agonists and σ_1 antagonists in tumour cell lines. *Naunyn-Schmied.Arch.Pharmacol.* **370** 106.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956