

Certificate of Analysis

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Product Name: Sertraline hydrochloride

Catalog No.: 2395

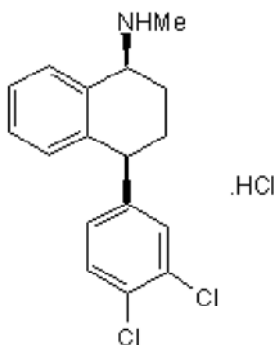
Batch No.: 3

CAS Number: 79559-97-0

IUPAC Name: (1S,4S)-4-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-naphthalenamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₇Cl₂N.HCl
Batch Molecular Weight: 342.69
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 50 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.58	5.29	4.09
Found	59.64	5.13	4.11

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

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Description:

Sertraline is a potent and selective serotonin (5-HT) reuptake inhibitor (SSRI) that is an orally active antidepressant. Sertraline also decreases ergosterol biosynthesis and exhibits antifungal activity against *Candida auris* in vitro. Sertraline acts as an inhibitor of SHMT (serine hydroxymethyltransferase), inhibiting serine/glycine synthesis and proliferation of serine/glycine synthesis-dependent breast cancer cell lines in vitro and in vivo.

Physical and Chemical Properties:

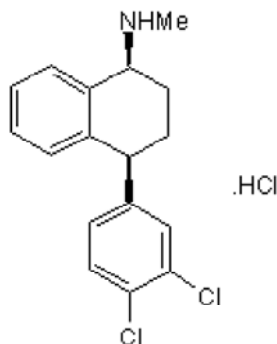
Batch Molecular Formula: C₁₇H₁₇Cl₂N.HCl

Batch Molecular Weight: 342.69

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 50 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.

References:

Geeraerts et al (2021) Repurposing the antidepressant Sertraline as SHMT inhibitor to suppress serine/glycine synthesis-addicted breast tumor growth. *Mol.Cancer Ther.* **20** 50. PMID: 33203732.

Gowri et al (2020) Sertraline as a promising antifungal agent: inhibition of growth and biofilm of *Candida auris* with special focus on the mechanism of action *in vitro*. *J.Appl.Microbiol.* **128** 426. PMID: 31621139.

Doogan and Caillard (1988) Sertraline: a new antidepressant. *J.Clin.Psychiatry.* **49** 46. PMID: 2842321.

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