

Certificate of Analysis

Product Name: W-13 hydrochloride

Catalog No.: 0361

Batch No.: 1

CAS Number: 88519-57-7

IUPAC Name: *N*-(4-Aminobutyl)-5-chloro-2-naphthalenesulfonamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₇ClN₂O₂S.HCl

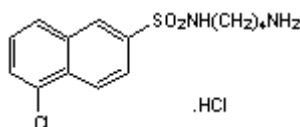
Batch Molecular Weight: 349.28

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.67 (Dichloromethane:Methanol:Ammonia soln. [10:1:0.1])

Melting Point: Between 231 - 237°C

HPLC: Shows 98.1% purity

¹H NMR: Consistent with structure

| | Carbon Hydrogen Nitrogen | | |
|--|--------------------------|-------|------|
| | Theoretical | Found | |
| | 48.14 | 47.77 | 8.02 |
| | | 5.12 | 5.19 |
| | | | 7.29 |

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

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Description:

Calmodulin antagonist (inhibits calmodulin activated PDE activity with an IC₅₀ of 68 μM). Inhibits growth of tamoxifen-resistant breast cancer cells.

Physical and Chemical Properties:

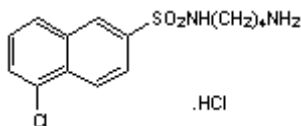
Batch Molecular Formula: C₁₄H₁₇ClN₂O₂S.HCl

Batch Molecular Weight: 349.28

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 100 mM

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.

References:

Hidaka and Tanaka (1983) Naphthalenesulfonamides as calmodulin antagonists. *Methods Enzymol.* **102** 185. PMID: 6139736.

Stroble and Peterson (1992) Tamoxifen-resistant human breast cancer cell growth: inhibition by thionidazine, pimozone and the calmodulin antagonist, W-13. *J.Pharmacol.Exp.Ther.* **263** 186. PMID: 1403784.

Bosch et al (1998) Calmodulin inhibitor W13 induces sustained activation of ERK2 and expression of p21^{cip1}. *J.Biol.Chem.* **273** 22145. PMID: 9705360.

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