

Product Name: W-7 hydrochloride

Catalog No.: 0369

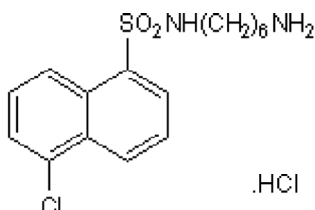
Batch No.: 8

CAS Number: 61714-27-0

IUPAC Name: *N*-(6-Aminohexyl)-5-chloro-1-naphthalenesulfonamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₂₁ClN₂O₂S.HCl
Batch Molecular Weight: 377.33
Physical Appearance: White solid
Solubility: water to 5 mM with gentle warming
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.52 (5% Pyridine, 15% AcOH, 20% water, 60% butanol)
HPLC: Shows 99% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	50.93	5.88	7.42
Found	50.99	5.92	7.46

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

Product Name: W-7 hydrochloride

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CAS Number: 61714-27-0

IUPAC Name: N-(6-Aminoethyl)-5-chloro-1-naphthalenesulfonamide hydrochloride

Description:

W-7 hydrochloride is a calmodulin antagonist. Inhibits Ca²⁺-calmodulin-dependent phosphodiesterase (IC₅₀ = 28 μM) and myosin light chain kinase (IC₅₀ = 51 μM). Induces shedding of platelet receptors GPVI, GPV and GPIIbα.

Physical and Chemical Properties:

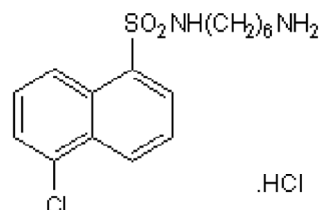
Batch Molecular Formula: C₁₆H₂₁ClN₂O₂S.HCl

Batch Molecular Weight: 377.33

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 5 mM with gentle warming
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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Gardiner *et al* (2007) Controlled shedding of platelet glycoprotein (GP)VI and GPIb-IX-V by ADAM family metalloproteinases. *J.Thromb.Haemost.* **5** 1530. PMID: 17445093.

Asano *et al* (1989) Divergent pharmacological effects of three calmodulin antagonists, N-(6-aminoethyl)-5-chloro-1-naphthalenesulfonamide (W 7), chlorprom. and calmidazolium, on isometric tension development and myosin light chain phosphorylation in intact bovine trachea *J.Pharmacol.Exp.Ther.* **251** 764. PMID: 2810127.

Itoh and Hidaka (1984) Direct interaction of calmodulin antagonists with Ca²⁺/calmodulin-dependent cyclic nucleotide phosphodiesterase. *J.Biochem.* **96** 1721. PMID: 6099352.

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