

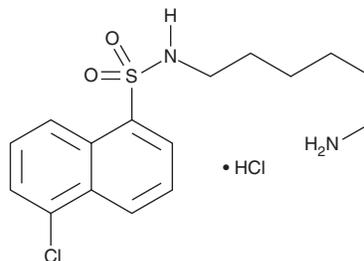
PRODUCT INFORMATION



W-7 (hydrochloride)

Item No. 14826

CAS Registry No.: 61714-27-0
Formal Name: N-(6-aminohexyl)-5-chloro-1-naphthalenesulfonamide, monohydrochloride
Synonym: NSC 683545
MF: C₁₆H₂₁ClN₂O₂S • HCl
FW: 377.3
Purity: ≥98%
UV/Vis.: λ_{max}: 224, 297 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

W-7 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the W-7 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. W-7 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of W-7 (hydrochloride) in these solvents is approximately 0.3, 14, and 20 mg/ml, respectively.

W-7 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, W-7 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. W-7 (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Calmodulin is a calcium-dependent protein that regulates the activity of a diverse array of enzymes, ion channels, and other proteins and thus has diverse roles in cell function.^{1,2} W-7 is a cell-permeable antagonist of calmodulin (K_i = 11 μM).^{3,4} Two molecules of W-7 bind to calcium-binding domains in each calmodulin molecule, blocking its interaction with target proteins.³ W-7 also associates, at lower affinities, with calcium-binding domains of other proteins, including troponin C and myosin light chain kinase (K_i = 70 and 300 μM, respectively).⁵⁻⁷

References

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7. Zimmer, M. and Hofmann, F. *Eur. J. Biochem.* **142**(2), 393-397 (1984).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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