# **PRODUCT** INFORMATION



W-13 (hydrochloride)

Item No. 14277

CAS Registry No.:	88519-57-7	
Formal Name:	N-(4-aminobutyl)-5-chloro-	
	2-naphthalenesulfonamide,	
	monohydrochloride	
MF:	$C_{14}H_{17}CIN_2O_2S \bullet HCI$	$H$ $H_2$
FW:	349.3	
Purity:	≥98%	
UV/Vis.:	λ <sub>max</sub> : 234, 283 nm	0 0
Supplied as:	A crystalline solid	• HCI
Storage:	-20°C	
Stability:	≥4 years	
Information represents	s the product specifications. Batch s	pecific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

W-13 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the W-13 (hydrochloride) in the solvent of choice. W-13 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. It is also soluble in water. The solubility of W-13 (hydrochloride) in ethanol, DMSO, DMF, and water is approximately 0.3, 14, 20, and 30 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

W-13 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, W-13 (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. W-13 (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

W-13 is a naphthalenesulfonamide derivative that acts as a potent antagonist of calmodulin (IC<sub>50</sub> =  $22 \,\mu$ M) and is widely used to investigate Ca<sup>2+</sup>/calmodulin-regulated enzyme activities.<sup>1-3</sup>

## References

- 1. Katayama, N., Nishikawa, M., Komada, F., et al. A role for calmodulin in the growth of human hematopoietic progenitor cells. Blood 75(7), 1446-1454 (1990).
- 2. Tebar, F., Villalonga, P., Sorkina, T., et al. Calmodulin regulates intracellular trafficking of epidermal growth factor receptor and the MAPK signaling pathway. Mol. Biol. Cell 13(6), 2057-2068 (2002).
- 3. Sengupta, P., Ruano, M.J., Tebar, F., et al. Membrane-permeable calmodulin inhibitors (e.g. W-7/W-13) bind to membranes, changing the electrostatic surface potential: Dual effect of W-13 on epidermal growth factor receptor activation. J. Biol. Chem. 282(11), 8474-8486 (2007).

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

### SAFFTY DATA

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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