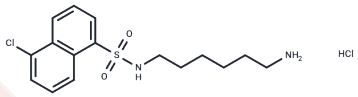
Data Sheet (Cat.No.T20792)

TargetMol

W-7 hydrochloride

Chemical Properties



CAS No. : 61714-27-0

Formula: C16H22Cl2N2O2S

Molecular Weight: 377.32

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	W-7 hydrochloride (W-7 HCl), a calmodulin antagonist, inhibits Ca2+-calmodulin-dependent myosin light chain kinase and phosphodiesterase, W-7 hydrochloride induces apoptosis and has antitumor activity.
Targets(IC50)	CaMK,Apoptosis,Myosin,PDE,Potassium Channel

Solubility Information

Solubility	DMSO: 250 mg/mL (662.57 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (26.5 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (26.5 mM),Solution. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6503 mL	13.2514 mL	26.5027 mL
5 mM	0.5301 mL	2.6503 mL	5.3005 mL
10 mM	0.265 mL	1.3251 mL	2.6503 mL
50 mM	0.053 mL	0.265 mL	0.5301 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Celotto AC, Capellini VK, Restini CB, Baldo CF, Bendhack LM, Evora PR. Extracellular alkalinization induces endothelium-derived nitric oxide dependent relaxation in rat thoracic aorta. Nitric Oxide. 2010 Dec 15;23(4):269-74. doi: 10.1016/j.niox.2010.07.008. Epub 2010 Aug 1. PubMed PMID: 20682356.

Sekizawa S, Bonham AC. Group I metabotropic glutamate receptors on second-order baroreceptor neurons are tonically activated and induce a Na+-Ca2+ exchange current. J Neurophysiol. 2006 Feb;95(2):882-92. Epub 2005 Sep 28. PubMed PMID: 16192328.

Holohean AM, Hackman JC. Mechanisms intrinsic to 5-HT2B receptor-induced potentiation of NMDA receptor responses in frog motoneurones. Br J Pharmacol. 2004 Oct;143(3):351-60. Epub 2004 Aug 31. PubMed PMID: 15339859; PubMed Central PMCID: PMC1575347.

Gonda K, Komatsu M, Numata O. Calmodulin and Ca2+/calmodulin-binding proteins are involved in Tetrahymena thermophila phagocytosis. Cell Struct Funct. 2000 Aug;25(4):243-51. PubMed PMID: 11129794.