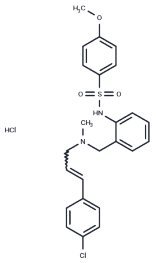
Data Sheet (Cat.No.T8543)

TargetMol

KN-92 hydrochloride

Chemical Properties



CAS No. : 1431698-47-3

Formula: C24H26Cl2N2O3S

Molecular Weight: 493.45

Storage: 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	KN-92 hydrochloride is an inactive derivative of the selective Ca2+/calmodulin-dependent kinase II (CaMKII) inhibitor KN-93, which competitively blocks CaM binding to the kinase with a Ki of 370 nM.
Targets(IC50)	CaMK,Others

Solubility Information

Solubility	DMSO: 40 mg/mL (81.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.05 mM),Sonication is recommended. *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	2.0265 mL	10.1327 mL	20.2655 mL
5 mM	0.4053 mL	2.0265 mL	4.0531 mL
10 mM	0.2027 mL	1.0133 mL	2.0265 mL
50 mM	0.0405 mL	0.2027 mL	0.4053 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

Rezazadeh S, Claydon TW, Fedida D. et al. KN-93 (2-[N-(2-hydroxyethyl)]-N-(4-methoxybenzenesulfonyl)]amino-N-(4-chlorocinnamyl)-N-methylbenzylamine), a calcium/calmodulin-dependent protein kinase II inhibitor, is a direct extracellular blocker of voltage-gated potassium channels. J Pharmacol Exp Ther. 2006 Apr;317(1):292-9.
Gao L, Blair LA, Marshall J. et al. CaMKII-independent effects of KN93 and its inactive analog KN92: reversible inhibition of L-type calcium channels. Biochem Biophys Res Commun. 2006 Jul 14;345(4):1606-10.
Rokhlin OW, Guseva NV, Taghiyev AF et al. KN-93 inhibits androgen receptor activity and induces cell death irrespective of p53 and Akt status in prostate cancer. Cancer Biol Ther. 2010 Feb;9(3):224-35.