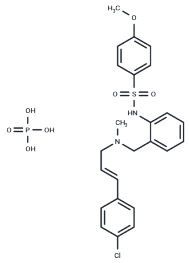
Data Sheet (Cat.No.T4530)

TargetMol

KN-92 phosphate

Chemical Properties



CAS No. : 1135280-28-2

Formula: C24H28ClN2O7PS

Molecular Weight: 554.98

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 phosphate (KN92-H3PO4) is an inactive derivative of KN-93. KN-93 is a selective inhibitor of Ca2+/calmodulin-dependent kinase II (CaMKII), competitively blocking CaM binding to the kinase (Ki = 370 nM).
Targets(IC50)	CaMK,Others,Autophagy
In vitro	KN-92 is intended to be used as a control compound in studies designed to elucidate the antagonist activities of KN-93. KN-93 inhibits histamine-induced aminopyrine uptake in parietal cells (IC50 = 300 nM). KN-93 has been used to implicate roles for CaMKII in Ca2+-induced Ca2+ release in cardiac myocytes, constitutive phosphorylation of 5-lipoxygenase in 3T3 cells, and Ca2+-dependent activation of HIF-1α in colon cancer cell.

Solubility Information

Solubility	DMSO: 55 mg/mL (99.1 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8019 mL	9.0093 mL	18.0187 mL
5 mM	0.3604 mL	1.8019 mL	3.6037 mL
10 mM	0.1802 mL	0.9009 mL	1.8019 mL
50 mM	0.036 mL	0.1802 mL	0.3604 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

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.
An P, Zhu JY, Yang Y et al. KN-93, a specific inhibitor of CaMKII inhibits human hepatic stellate cell proliferation in vitro. World J Gastroenterol. 2007 Mar 7;13(9):1445-8.
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.

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