Product Data Sheet

Product Name: KN-92
Cat. No.: GC14132

Chemical Properties

Cas. No.	176708-42-2		
Chemical Name	(E)-N-(2-(((3-(4-chlorophenyl)allyl)(methyl)amino)methyl)phenyl)-4-methoxybenzenesulfonamide		
SMILES	CN(CC1=CC=CC=C1NS(=O)(C2=CC=C(OC)C=C2)=O)C/C=C/C3=CC=C(Cl)C=C3		
Formula	$C_{24}H_{25}ClN_2O_3S$	M.Wt	456.98
Solubility	≥ 15.1 mg/mL in DMSO, ≥ 24.2 mg/mL in EtOH with gentle warming	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	KN-92		

Background

KN-92 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). IC50 value:Target: 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.

References:
[1]. 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

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Ther. 2010 Feb;9(3):224-35.
[2]. 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.
[3]. 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.
[4]. 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.
[5]. Anderson ME, Braun AP, Wu Y et al. KN-93, an inhibitor of multifunctional Ca++/calmodulin-dependent protein kinase, decreases early afterdepolarizations in rabbit heart. J Pharmacol Exp Ther. 1998 Dec;287(3):996-1006.
[6]. Sumi M, Kiuchi K, Ishikawa T et al. The newly synthesized selective Ca2+/calmodulin dependent protein kinase II inhibitor KN-93 reduces dopamine contents in PC12h cells. Biochem Biophys Res Commun. 1991 Dec 31;181(3):968-75.

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