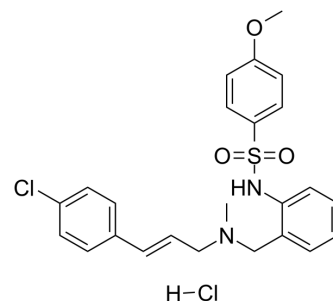


KN-92 hydrochloride

Cat. No.:	HY-15517B
CAS No.:	1431698-47-3
Molecular Formula:	C ₂₄ H ₂₆ Cl ₂ N ₂ O ₃ S
Molecular Weight:	493.45
Target:	Others
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : ≥ 50 mg/mL (101.33 mM) H ₂ O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble) * "≥" means soluble, but saturation unknown.				
		<div>Solvent Mass Concentration</div>	1 mg	5 mg	10 mg
	Preparing Stock Solutions	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
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.75 mg/mL (5.57 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.75 mg/mL (5.57 mM); Clear solution 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.75 mg/mL (5.57 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	KN-92 hydrochloride is an inactive derivative of KN-93, without CaM kinase inhibitory activity. KN-92 hydrochloride is intended to be used as a control compound in studies designed to elucidate the antagonist activities of KN-93 ^{[1][2]} .
In Vitro	KN-93 (5-50μM; 24 hours) inhibits LX-2 cell growth and KN-92 (5-50μM; 24 hours) is ineffective in blocking cell growth ^[2] . The analysis of cell cycle regulator expression reveals that KN-93 rather than KN-92 reduced the expression of p53 and p21 ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[2]

Cell Line:	Human hepatic stellate cells (LX-2)
Concentration:	5-50 μ M
Incubation Time:	24 hours
Result:	Ineffective in blocking cell growth.

CUSTOMER VALIDATION

- Cell Calcium. 2021 Oct 5;100:102483.
- J Mol Cell Cardiol. 2021 Nov 10;S0022-2828(21)00210-8.
- J Endocrinol. 2018 Mar;236(3):151-165.
- Nat Metab. 2020 Sep;2(9):918-933.

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REFERENCES

[1]. Smyth JT, et al. Inhibition of the inositol trisphosphate receptor of mouse eggs and A7r5 cells by KN-93 via a mechanism unrelated to Ca²⁺/calmodulin-dependent protein kinase II antagonism. J Biol Chem. 2002;277(38):35061-35070.

[2]. An P, et al. KN-93, a specific inhibitor of CaMKII inhibits human hepatic stellate cell proliferation in vitro. World J Gastroenterol. 2007;13(9):1445-1448.

Caution: Product has not been fully validated for medical applications. For research use only.

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