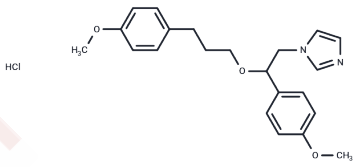
Data Sheet (Cat.No.T2170)

TargetMol

SKF-96365 hydrochloride

Chemical Properties



CAS No. : 130495-35-1

Formula: C22H27ClN2O3

Molecular Weight: 402.91

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	SKF-96365 hydrochloride (SKF96365) , a SOCE inhibitor, exhibits potent anti-neoplastic activity by inducing cell-cycle arrest and apoptosis in colorectal Y cells. SKF-96365 hydrochloride can induce cytoprotective autophagy to delay apoptosis by preventing the release of cytochrome c (cyt c) from the mitochondria into the cytoplasm. Mechanistically, SKF-96365 hydrochloride treatment inhibited the calcium/calmodulin-dependent protein kinase IIγ (CaMKIIγ)/AKT signaling cascade in vitro and in vivo. Overexpression of CaMKIIγ or AKT abolished the effects of SKF-96365 on Y cells, suggesting a critical role of the CaMKIIγ/AKT signaling pathway in SFK-96365-induced biological effects. SKF-96365 hydrochloride inhibited hERG current in a concentration-dependent manner.
Targets(IC50)	Apoptosis,Calcium Channel,Autophagy,Potassium Channel,TRP/TRPV Channel
In vitro	SKF-96365 exhibits protective activity against MPP+ injury in PC12 cells and significantly inhibits apoptotic cell death in PC12 cells after MPP+ administration. SKF-96365 does not exert effects on necrotic cell death induced by MPP+ insult in PC12 cells. Because of its non-selective activity, SKF-96365 has been demonstrated to have effects on multiple other Ca2+ channels: it not only blocks high-voltage-activated (HVA) Ca2+ channels at typically utilized test concentrations, but also potently inhibits low-voltage -activated (LVA) T-type Ca2+ channels in HEK293 cells. The exact effect of SKF-96365 on intracellular calcium homeostasis might dependent on cell types and experimental models used[2].
In vivo	SKF-96365 treatment inhibited the calcium/calmodulin-dependent protein kinase IIγ (CaMKIIγ)/AKT signaling cascade in vitro and in vivo[4].
Cell Research	To investigate whether SKF-96365 could protect PC12 cells from injury induced by MPP+ insult, cultured PC12 cells are pretreated with SKF-96365 in different concentrations (1 μM, 10 μM or 50 μM) 30 min before MPP+ addition. The cells viability is measured 24 h after MPP+ insult by using the cell proliferation reagent WST-1. (Only for Reference)

Solubility Information

Solubility	DMSO: 125 mg/mL (310.24 mM),Sonication is recommended. H2O: 198.6 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 (4.96 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	2.4819 mL	12.4097 mL	24.8194 mL
5 mM	0.4964 mL	2.4819 mL	4.9639 mL
10 mM	0.2482 mL	1.241 mL	2.4819 mL
50 mM	0.0496 mL	0.2482 mL	0.4964 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

Singh A, et al. Br J Pharmacol. 2010, 160(6):1464-1475.
Zhong T, Chen S, Deng K, et al.Magnesium alleviates extracellular histone-induced apoptosis and defective bacterial phagocytosis in macrophages by regulating intracellular calcium signal.International Immunopharmacology.2024, 132: 111870.
Chen T, et al. PLoS One. 2013, 8(1):e55601.
Yao H, et al. Cell Death Differ. 2009, 16(12):1681-1693.
Jing Z, et al. Cancer Lett. 2016, 372(2):226-38.