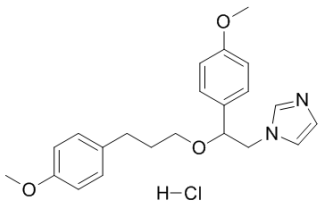
SKF-96365 hydrochloride

Cat. No.:	HY-100001
CAS No.:	130495-35-1
Molecular Formula:	$C_{22}H_{27}ClN_2O_3$
Molecular Weight:	402.91
Target:	TRP Channel; Autophagy
Pathway:	Membrane Transporter/Ion Channel; Autophagy
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



Solvent & Solubility

In Vitro

DMSO : ≥ 30 mg/mL (74.46 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	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	1.2410 mL	2.4819 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description	SKF-96365 hydrochloride is a non-selective **TRP Channel** blocker.
IC_{50} & Target	TRP Channel[1]
In Vitro	SKF-96365 exhibits potent anti-neoplastic activity by inducing cell-cycle arrest and apoptosis in colorectal cancer cells. SKF-96365 inhibits hERG current in a concentration-dependent manner[1]. SKF-96365 can induces cytoprotective autophagy to delay apoptosis by preventing the release of cytochrome c (cyt c) from the mitochondria into the cytoplasm. Mechanistically, SKF-96365 treatment inhibits the calcium/calmodulin-dependent protein kinase II γ (CaMKIIγ)/AKT signaling cascade. Overexpression of CaMKIIγ or AKT abolishes the effects of SKF-96365 on cancer cells, suggesting a critical role of the CaMKIIγ/AKT signaling pathway in SFK-96365-induced biological effects[2].
In Vivo	SKF-96365 inhibits CRC cell growth in vivo. SKF-96365 treatment results in a decrease of p-CaMKII and p-AKT as well as an increase in LC3-II, cleaved PARP, caspase-3, and caspase-9 in mice[2].

PROTOCOL

Animal Administration [2]

Mice: Five to six-week-old female athymic BALB/c mice are inoculated into the right oxter with HCT116 cells. When the diameter of the subcutaneous tumor reaches approximately 0.5 cm, animals are randomLy assigned to the vehicle, SKF-96365 alone, HCQ alone or SKF-96365+HCQ. SKF-96365 is applied (20 mg/kg) and HCQ is applied (60 mg/kg) daily for 14 successive days by i.p. injection. Tumor sizes and volume are determined. Eight mice are included in each group. Mice are sacrificed 24 h after the last treatment. The tumors are weighed and processed for western blot analysis or paraffin embedding[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Liu H, et al. SKF-96365 blocks human ether-à-go-go-related gene potassium channels stably expressed in HEK 293 cells. Pharmacological Research. Pharmacol Res, 2016 Feb, 104:61-9.

[2]. Jing Z, et al. SKF-96365 activates cytoprotective autophagy to delay apoptosis in colorectal cancer cells through inhibition of the calcium/CaMKIIγ/AKT-mediated pathway. Cancer Lett, 2016 Mar 28, 372(2):226-38.

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