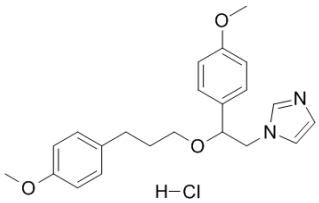
Data Sheet

Product Name:	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:	Autophagy; TRP Channel
Pathway:	Autophagy; Membrane Transporter/Ion Channel
Solubility:	DMSO: ≥ 30 mg/mL



BIOLOGICAL ACTIVITY:

SKF-96365 hydrochloride, a potent **TRP Channel** blocker, exhibits potent anti-neoplastic activity by inducing cell-cycle arrest and apoptosis in colorectal cancer cells.
IC50 & 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 IIγ (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 (Extracted from published papers and Only for reference)

Animal Administration: SKF-96365 is prepared in saline.[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].

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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