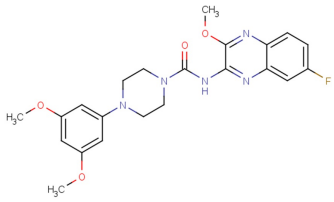
Data Sheet (Cat.No.T16961)

TargetMol
A DRUG SCREENING EXPERT

Supinoxin

Chemical Properties



CAS No.:	888478-45-3
Formula:	C22H24FN5O4
Molecular Weight:	441.46
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Supinoxin is an orally active inhibitor of phosphorylated-p68 RNA helicase and a potent first-in-class anti-cancer agent. Supinoxin induces cell apoptosis and inhibits growth of TNBC cancer cell lines (IC50s: ranging from 10 nM to 20 nM).
Targets(IC_{50})	phosphorylated-p68 RNA helicase;apoptosis: None
In vitro	Supinoxin inhibits cell growth, MDA-MB-231, Caki-1, UMRC2, PANC-1, A549, MKN-45, HepG2, HCT116, HT29, PC-3, U251, HeLa, SK-MEL-28 and OVCAR-3 (IC50: range from 0.01 μM to 0.021 μM in the growth inhibition of cancer cells). Supinoxin (0-10 μM; 72 hours) is active against cell lines of all TNBC molecular subtypes and is active against cell lines with mutations in p53, RB1, CDKN2A, and loss of PTEN. Supinoxin (20-100 nM; 24 hours) treatment causes a dose-dependent increase in tetraploid cells, consistent with induction of G2–M cell-cycle arrest. Supinoxin (0-100 nM; 24 or 48 hours) reduces MCL-1 expression as a dose-dependent manner in TNBC cell lines sensitive to Supinoxin. Supinoxin (0-100 nM; 72 hours) exhibits no significant induction of apoptosis in cell lines resistant to the antiproliferative effects of Supinoxin. But in sensitive cells, the observed activation of apoptosis begins at 24–48 hours and reaches a peak at 72 hours. The induced apoptosis is greasted with a dose of 100 nM [1][2].
In vivo	Supinoxin (p.o.; 160/320/600 mg/kg; once weekly for 3 weeks) obviously dose-dependent tumor growth inhibition in the MDA-MB-231 model, exhibits TGI of 55.7%, 80.29% and 94.58% at 160 mg/kg, 320 mg/kg and 600 mg/kg, respectively [1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.265 mL	11.326 mL	22.652 mL
5 mM	0.453 mL	2.265 mL	4.53 mL
10 mM	0.227 mL	1.133 mL	2.265 mL
50 mM	0.045 mL	0.227 mL	0.453 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Kost GC, et al. A Novel Anti-Cancer Agent, 1-(3,5-Dimethoxyphenyl)-4-[(6-Fluoro-2-Methoxyquinoxalin-3-yl)Aminocarbonyl] Piperazine (RX-5902), Interferes With β-Catenin Function Through Y593 Phospho-p68 RNA Helicase.J Cell Biochem. 2015 Aug;116(8):1595-601.

2. Capasso A, et al. First-in-Class Phosphorylated-p68 Inhibitor RX-5902 Inhibits β-Catenin Signaling and Demonstrates Antitumor Activity in Triple-Negative Breast Cancer.Nov;18(11):1916-1925.

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