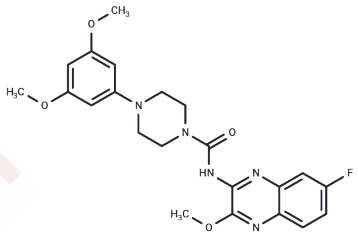
# Data Sheet (Cat.No.T16961)

TargetMol

## Supinoxin

### Chemical Properties



CAS No. : 888478-45-3

Formula: C22H24FN5O4

Molecular Weight: 441.46

Storage: Store at low temperature
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 | Supinoxin (RX-5902) is an orally active inhibitor of phosphorylated-p68 RNA helicase and a potent first-in-class anti-cancer agent, inducing cell apoptosis and inhibiting the growth of TNBC cancer cell lines (IC50s: 10 nM - 20 nM). |
| Targets(IC50) | Apoptosis,DNA/RNA Synthesis |
| 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 in 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 treated 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 | DMSO: 62.5 mg/mL (141.58 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.2652 mL | 11.3261 mL | 22.6521 mL |
| 5 mM | 0.453 mL | 2.2652 mL | 4.5304 mL |
| 10 mM | 0.2265 mL | 1.1326 mL | 2.2652 mL |
| 50 mM | 0.0453 mL | 0.2265 mL | 0.453 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

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.
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.