Akt1-IN-1

Cat. No.: HY-146459

Molecular Formula: $C_{31}H_{32}FN_5O_5S_2$

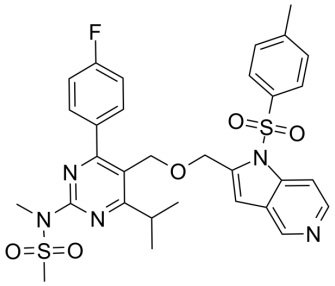
Molecular Weight: 637.74

Target: Akt

Pathway: PI3K/Akt/mTOR

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 : 100 mg/mL (156.80 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.5680 mL	7.8402 mL	15.6804 mL
	5 mM	0.3136 mL	1.5680 mL	3.1361 mL
	10 mM	0.1568 mL	0.7840 mL	1.5680 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (3.92 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (3.92 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Akt1-IN-1 (compound 5b) is a potent and selective Akt1 inhibitor with an IC_{50} value of 18.79 nM in MIA Paca-2 cells. Akt1-IN-1 does not exhibit obvious teratogenicity, hepatotoxicity and cardiotoxicity (No Observed Adverse Effect Level > 100 μM). Akt1-IN-1 can be used for researching anticancer[1].

IC_{50} & Target

IC_{50}: 18.79 nM in MIA Paca-2 cells[1]

REFERENCES

[1]. Kumar JS, et al. Ultrasound assisted one-pot synthesis of rosuvastatin based novel azaindole derivatives via coupling-cyclization strategy under Pd/Cu-catalysis: Their

evaluation as potential cytotoxic agents. Bioorg Chem. 2022;124:105857.

Caution: Product has not been fully validated for medical applications. For research use only.

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