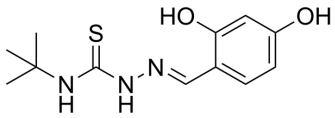
IMM-01

Cat. No.:	HY-124808
CAS No.:	218795-74-5
Molecular Formula:	$C_{12}H_{17}N_3O_2S$
Molecular Weight:	267.35
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (467.55 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7404 mL	18.7021 mL	37.4041 mL
	5 mM	0.7481 mL	3.7404 mL	7.4808 mL
	10 mM	0.3740 mL	1.8702 mL	3.7404 mL

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

BIOLOGICAL ACTIVITY

Description

IMM-01 is a formin agonist that inhibits DID-DAD (diaphanous inhibitory domain-diaphanous autoregulatory domain) binding with an IC_{50} 140 nM. IMM-01 acts by disrupting the autoinhibitory bond between the DID and DAD domain and thus activates formins. IMM-01 shows anticancer effects[1].

In Vitro

IMM-01 (100 μM; 1h) induces microtubule stabilization in SW480 colon carcinoma cells[1].
IMM-01 (10 μM) significantly induces LacZ expression in NIH 3T3-SRE-LacZ cells[1].
IMM-01 (1-100 μM; 48 hours) induces caspase-3 cleavage during induction of apoptosis in NIH 3T3 cells and SW480 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	NIH 3T3 cells and SW480 cells
Concentration:	1 μM, 10 μM, or 100 μM
Incubation Time:	48 hours
Result:	Induced caspase-3 cleavage.

In Vivo

IMM-01 (5-25 mg/kg; i.v.; 2 times a week; for 3 weeks) is able to slow tumor growth in a mouse xenograft model of colon cancer[1].

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Animal Model:	Athymic nude female mice (6 to 8 weeks) implanted with SW480 cells[1]
Dosage:	5 mg/kg, 25 mg/kg
Administration:	i.v.; 2 times a week; for 3 weeks
Result:	Slowed tumor growth in a dose-dependent manner when administered intravenously via the tail vein.

REFERENCES

[1]. L Leanne Lash, et al. Small-molecule intramimics of formin autoinhibition: a new strategy to target the cytoskeletal remodeling machinery in cancer cells. Cancer Res. 2013 Nov 15;73(22):6793-803.

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