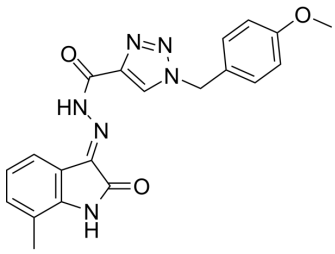
MARK4 inhibitor 1

Cat. No.:	HY-114317
CAS No.:	2271081-58-2
Molecular Formula:	$C_{20}H_{18}N_6O_3$
Molecular Weight:	390.4
Target:	Apoptosis; AMPK
Pathway:	Apoptosis; Epigenetics; PI3K/Akt/mTOR
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5 mg/mL (12.81 mM; ultrasonic and adjust pH to 2 with HCl)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5615 mL	12.8074 mL	25.6148 mL
5 mM	0.5123 mL	2.5615 mL	5.1230 mL
10 mM	0.2561 mL	1.2807 mL	2.5615 mL

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

BIOLOGICAL ACTIVITY

Description

MARK4 inhibitor 1 is a potent and selective microtubule affinity-regulating kinase 4 (MARK4) inhibitor, with an IC_{50} of 1.54 μM. MARK4 inhibitor 1 inhibits cancer cell proliferation, metastasis and induces apoptosis[1].

IC_{50} & Target

IC50: 1.54 μM (MARK4)[1].

In Vitro

MARK4 inhibitor 1 (compound 9g; 0-200 μM ; 24-48 h) shows inhibition of cell proliferation and cell migration[1].
MARK4 inhibitor 1 (compound 9g; 24) induces apoptosis in these cancerous cells, with IC_{50} values of 6.22 μM, 9.94 μM and 8.14 μM, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	MCF-7, MDA-MB-435s and HepG2 cells
Concentration:	0-200 μM

Incubation Time:	24 and 48 h
Result:	Decreased the viability of these cells in a concentration dependent manner.

REFERENCES

[1]. Aneja B, et al. Design and development of Isatin-triazole hydrazones as potential inhibitors of microtubule affinity-regulating kinase 4 for the therapeutic management of cell proliferation and metastasis. Eur J Med Chem. 2019 Feb 1;163:840-852.

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