SZABO SCANDIC

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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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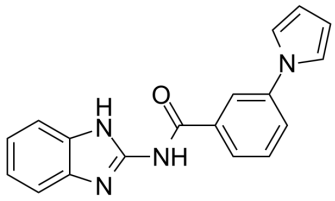
MKI-1

Cat. No.:	HY-137552		
CAS No.:	1190277-80-5		
Molecular Formula:	$C_{18}H_{14}N_4O$		
Molecular Weight:	302.33		
Target:	Others		
Pathway:	Others		
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 : 250 mg/mL (826.91 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.3076 mL	16.5382 mL	33.0764 mL
	5 mM	0.6615 mL	3.3076 mL	6.6153 mL
	10 mM	0.3308 mL	1.6538 mL	3.3076 mL

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

BIOLOGICAL ACTIVITY

Description

MKI-1, an inhibitor of MASTL (microtubule-associated serine/threonine kinase-like) with an IC_{50} of 9.9 μM, exerts antitumor and radiosensitizer activities through PP2A activation in breast cancer[1].

In Vitro

MKI-1 (5-20 μM) inhibits the activity of MASTL in breast cancer cells[1].
MKI-1 (100 μM, 72 h) inhibits various oncogenic properties of breast cancer cells but showed much weaker effects on the viability of normal breast cells[1].
MKI-1 clearly reduces both serine 62-phosphorylation of c-Myc and total c-Myc, with a decrease in ENSA phosphorylation[1].
MKI-1 (20 μM, 16 h) reduces c-Myc stability through PP2A activation in MCF7 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	MCF7 and T47D cells.
Concentration:	5-20 μM.

Incubation Time:	24 h.
Result:	Inhibited the phosphorylation of ENSA in MCF7 and T47D cells. Significantly inhibited the phosphorylation of ENSA in mitotic cells.

In Vivo

MKI-1 (50 mg/kg, ip, twice a week) reduces tumor growth and enhances the radiosensitivity of BT549 xenograft model in response to 6 Gy irradiation compared with the control group, with no notable changes in body weight, suggesting the absence of gross toxicity in the treated mice[1].

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

Animal Model:	Five-week-old female BALB/c nude mice (BT549 cells)[1].
Dosage:	50 mg/kg.
Administration:	Twice per week by intraperitoneal (i.p.) injection.
Result:	Reduced tumor growth.

REFERENCES

[1]. Ah-Young Kim, et al. MKI-1, a Novel Small-Molecule Inhibitor of MASTL, Exerts Antitumor and Radiosensitizer Activities Through PP2A Activation in Breast cancer. Front Oncol. 2020 Sep 29;10:571601.

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