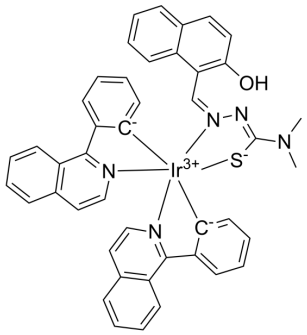
Antitumor agent-145

Cat. No.:	HY-162348
CAS No.:	2983120-65-4
Molecular Formula:	$C_{44}H_{34}IrN_5OS$
Molecular Weight:	873.06
Target:	Necroptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Antitumor agent-145 (Compound Ir5) is a tumor inhibitor with remarkable fluorescence and mitochondrial targeting, which exerts anti-cancer effects by inducing necroptosis and activating the necroptosis-related immune response[1].

In Vitro

Antitumor agent-145 (Compound Ir5) (48 h) could effectively reduce the cell viability of BEL-7402/DDP cells with IC_{50} value of 0.49 μM and a resistance coefficient (RF) of 1.04. No obvious cytotoxicity Antitumor agent-145[1].

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

In Vivo

Antitumor agent-145 (Compound Ir5) (1.5 or 3.0 mg/kg, intravenous injection, every other day for 21 days) significantly reduced tumor volume and inhibited tumor metastasis in BALB/c mice. Antitumor agent-145 does not cause significant liver and kidney dysfunction in mouse models[1].

Antitumor agent-145 (1.5 or 3.0 mg/kg, intravenous injection, every other day for 21 days) BEL-7402/DDP tumor xenograft models can significantly inhibit the growth and metastasis of CDDP resistant tumors without causing obvious tissue damage [1].

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

Animal Model:	BALB/c mice
Dosage:	NaCl, CDDP (3 mg/kg), Ir5 (1.5 mg/kg), and Ir5 (3 mg/kg)
Administration:	every other day for 21 days
Result:	The tumor volume in BALB/c mice was significantly reduced, and there was no significant difference in the weight of major organs.

Animal Model:	BEL-7402/DDP tumor xenograft models
Dosage:	1.5 mg/kg or 3 mg/kg
Administration:	every 2 days for 21 days
Result:	The results revealed that Ir5 significantly decreases the tumor volume, with an inhibition rate of tumor growth (IRT) of 40.0% at a dose of 1.5 mg/kg and 58.1% at a dose of 3 mg/kg, compared to only 10.1% in the CDDP group. No obvious tissue injury.

REFERENCES

[1]. Li, Wenjuan et al. “Designing a Mitochondria-Targeted Theranostic Cyclometalated Iridium(III) Complex: Overcoming Cisplatin Resistance and Inhibiting Tumor Metastasis through Necroptosis and Immune Response.” Journal of medicinal chemistry vol. 67,5 (2024): 3843-3859.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA