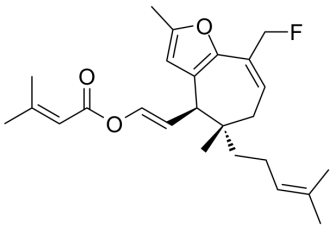
HSP90-IN-18

Cat. No.:	HY-152027
CAS No.:	2927442-45-1
Molecular Formula:	$C_{25}H_{33}FO_3$
Molecular Weight:	400.53
Target:	HSP; Apoptosis
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	HSP90-IN-18 is an effective heat shock protein 90 (Hsp90) inhibitor. HSP90-IN-18 has effective Hsp90 inhibitory activity with an IC_{50} value of 0.39 μM. HSP90-IN-18 can be used for the research of viral infection, neurodegenerative disease, and inflammation[1].
IC_{50} & Target	IC50: 0.39 μM (Hsp90); 17.65 μM (MCF-7); 20.03 μM (SW480); ⊠40 μM (A549); 3.69 μM (HL60); 11.92 μM (SMMC-7721)[1]

In Vitro

HSP90-IN-18 has effective Hsp90 inhibitory activity with an IC_{50} value of 0.39 μM[1].
HSP90-IN-18 (40, 8, 1.6, 0.32, 0.064 μM; 48 h) has antiproliferative activity against MCF-7, SW480, A549, HL60 and SMMC-7721 with IC_{50} values of 17.65 μM, 20.03 μM, ⊠40 μM, 3.69 μM and 11.92 μM, respectively[1].
HSP90-IN-18 (0, 1, 5, 10, 20 μM; 12-16 h) promotes HL-60 cell apoptosis by mitochondrial-mediated apoptosis pathway[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	HL-60, A549, SMMC7721, MCF-7 and SW480 cell lines
Concentration:	40, 8, 1.6, 0.32, 0.064 μM
Incubation Time:	48 h
Result:	Showed much better anti-proliferation activities in five cancer cell lines, especially against human leukocyte cell line.

Apoptosis Analysis[1]

Cell Line:	HL-60 cells
Concentration:	0, 1, 5, 10, 20 μM
Incubation Time:	12-16 h
Result:	Promoted the apoptosis of HL-60 cells.

Western Blot Analysis[1]

Cell Line:	HL-60 cells

Concentration:	0, 1, 5, 10 μM
Incubation Time:	24 h
Result:	Showed the expression of Bcl2 was significantly reduced, while Bax was increased.

In Vivo

HSP90-IN-18 (i.p.; 100 mg/kg; for 14 days) suppresses tumor growth in the H22 tumor-bearing mice model and revealed low acute toxicity in mice[1].

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

Animal Model:	Kunming Mice (female; 18–20g)[1]
Dosage:	100 mg/kg
Administration:	Intraperitoneal administration for 14 days
Result:	Showed normal behavior and feeding habits without any signs of toxicity and demonstrated low acute toxicity (LD_{50} > 500 mg/kg).

REFERENCES

[1]. Meng Li, et al. Design, synthesis and biological evaluation of a new class of Hsp90 inhibitors vibsanin C derivatives. Eur J Med Chem. 2022 Dec 15;244:114844.

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