Tubulin inhibitor 40

Cat. No.: HY-163195

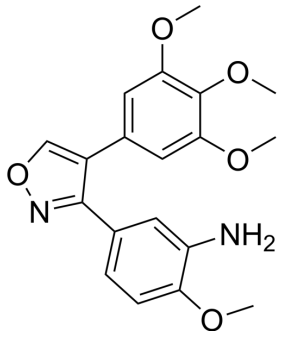
Molecular Formula: $C_{19}H_{20}N_2O_5$

Molecular Weight: 356.37

Target: Microtubule/Tubulin

Pathway: Cell Cycle/DNA Damage; Cytoskeleton

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Tubulin inhibitor 40 (compound 45) is a tubulin inhibitor with IC_{50} of 1.2 μM. Tubulin inhibitor 40 shows selective cytotoxicity towards cancer cells. Tubulin inhibitor 40 processes antitumor activity [1].

IC_{50} & Target

0.005 μM (Tubulin, A549), 0.008 μM (Tubulin, VA13), 0.009 μM (Tubulin, MCF7'), 0.008 μM (Tubulin, HEK293T)[1]

In Vitro

Tubulin inhibitor 40 reveals cytotoxicity towards cell lines A549, VA13, MCF7' and HEK293T, with IC_{50} values of 0.005 μM, 0.008 μM, 0.009 μM and 0.008 μM, respectively [1].

Tubulin inhibitor 40 inhibits tubulin polymerization with IC_{50} of 1.2 μM [1].

Tubulin inhibitor 40 (1-25 μM, 24 h) causes changes in cell morphology and tubulin assembly in A549[1].

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

Cell Cytotoxicity Assay[1]

Cell Line:	A549, VA13, MCF7', HEK293T
Concentration:	a range of concentrations from a few nM to 100 μM
Incubation Time:	72 h
Result:	Showed cytotoxicity towards cell lines A549, VA13, MCF7' and HEK293T.

In Vivo

Tubulin inhibitor 40 (i.v., 20 mg/kg, 5 days) processes antitumor activity[1].

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

Animal Model:	antitumor efficacy in murine L1210 and P388 leukemia in BALB/c nude mice[1]
Dosage:	20 mg/kg, i.v., 5 days
Administration:	intravenous injection
Result:	Showed T/C values of 233% and 324% for P388 and L1210 leukemia.

Animal Model:	Antitumor Efficacy in Human Cancer Xenografts.SW620 in BALB/c nude mice[1]

Dosage:	20 mg/kg, i.v., 5 days
Administration:	i.v. .intravenous injection
Result:	Reduced tumor growth by 74%.

REFERENCES

[1]. Georgy L et al., 3,4-Diarylisoxazoles：Analogues of Combretastatin A-4: Design, Synthesis, and Biological Evaluation In Vitro and In Vivo. ACS Pharmacology & Translational Science Article ASAP, January 16, 2024

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