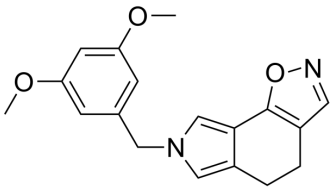
Tubulin polymerization-IN-36

Cat. No.:	HY-151397
CAS No.:	2011784-91-9
Molecular Formula:	$C_{18}H_{18}N_2O_3$
Molecular Weight:	310.35
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 polymerization-IN-36 is a tubulin polymerization inhibitor (IC_{50}: 2.8 μM). Tubulin polymerization-IN-36 binds to the colchicine site of tubulin and inhibits colchicine binding. Tubulin polymerization-IN-36 can be used in the research of cancers, such as lymphomas[1].
IC_{50} & Target	Tubulin polymerization[1]

In Vitro

Tubulin polymerization-IN-36 (compound 2e, 1 μM, 72 h) inhibits proliferation of lymphoma cells below 50%[1].
Tubulin polymerization-IN-36 (50 and 500 nM, 24-72 h) induces cell apoptosis and arrests cell in G2/M phase in VL51 and MINO cells[1].
Tubulin polymerization-IN-36 (5 μM) inhibits colchicine binding to tubulin by 88%[1].
Tubulin polymerization-IN-36 shows cytotoxicity against MCF-7 cells (IC_{50}: 0.29 μM)[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	VL51, MINO, HBL1, SU-DHL-10 cells.
Concentration:	0-10 μM
Incubation Time:	72 h
Result:	Inhibited cell proliferation to 38%, 0.8%, 7.1%, 30.5% at 1 μM, respectively. IC_{50}s: 0.04, 0.02, 0.02, 0.03 μM, respectively.

Cell Cycle Analysis[1]

Cell Line:	VL51 and MINO cells
Concentration:	50 and 500 nM
Incubation Time:	24, 48 and 72 h
Result:	Arrested cell in G2/M phase.

REFERENCES

[1]. Michael D Wendt, et al. Development of [1,2]oxazoloisoindoles tubulin polymerization inhibitors: Further chemical modifications and potential therapeutic effects against lymphomas. J Med Chem. 2006 Feb; 49(3): 1165-81.

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