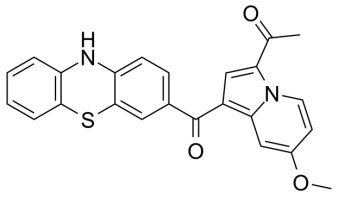
Tubulin polymerization-IN-25

Cat. No.:	HY-149016
CAS No.:	2490538-46-8
Molecular Formula:	$C_{24}H_{18}N_2O_3S$
Molecular Weight:	414.48
Target:	Microtubule/Tubulin; Farnesyl Transferase
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tubulin polymerization-IN-25 (compound 17f) is a dual inhibitor of tubulin polymerization and farnesyl transferase (FTase) with IC_{50}s of 1.11 μM and 0.39 μM, respectively. Tubulin polymerization-IN-25 displays cytotoxicity and excellent antitumor activity [1].
IC_{50} & Target	IC50: 1.11 μM (Tubulin); 0.39 μM (FTase)[1]

In Vitro

Tubulin polymerization-IN-25 (compound 17f) is a dual inhibitor (MTI-FTI hybrids) acting on tubulin polymerization and on FTase[1].

Tubulin polymerization-IN-25 (10 μM, 48 h) inhibits cells growth and induces cell cytotoxicity on multiple cancer cell lines[1].

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

Cell Viability Assay[1]

Cell Line:	Leukemia cells: SR, CCRF-CEM, K-562; lung cancer cell CCRF-CEMNCI-H522; melanoma cell M14
Concentration:	10 μM
Incubation Time:	48 hours
Result:	Inhibited cell growth.

Cell Cytotoxicity Assay[1]

Cell Line:	NCI-H522 (lung cancer), COLO-205 and HT29 (colon cancer), SF-539 (human glioblastoma), MDA-MB-435 (melanoma), OVCAR-3 (ovarian cancer) and A498 (renal cancer)
Concentration:	10 μM
Incubation Time:	48 hours
Result:	Induced cell cytotoxicity.

REFERENCES

[1]. Iuliana-Monica Moise, et al. Indolizine-phenothiazine hybrids as the first dual inhibitors of tubulin polymerization and farnesyltransferase with synergistic antitumor activity. Bioorg Chem. 2020 Oct; 103: 104184.

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