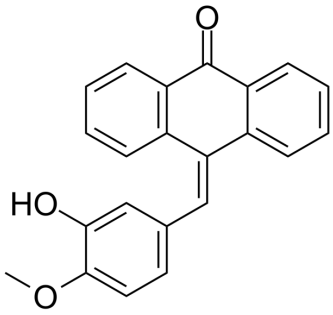
Tubulin polymerization-IN-24

Cat. No.:	HY-101989
CAS No.:	564468-51-5
Molecular Formula:	$C_{22}H_{16}O_3$
Molecular Weight:	328.36
Target:	Microtubule/Tubulin; Apoptosis
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tubulin polymerization-IN-24 (compound HMBA) is a potent tubulin polymerization inhibitor. Tubulin polymerization-IN-24 inhibits MCF-7 cells proliferation. Tubulin polymerization-IN-24 induces apoptosis and cell cycle arrest at G2/M phase. Tubulin polymerization-IN-24 increase the GTP hydrolysis rate and inhibits microtubule assembly[1].
In Vitro	Tubulin polymerization-IN-24 (compound HMBA) inhibits the assembly of purified tubulin (MAPs-free) in a concentration dependent manner[1]. Tubulin polymerization-IN-24 (0-100 nM) inhibits MCF-7 proliferation in a concentration dependent fashion with an IC_{50} value of 47 nM[1]. Tubulin polymerization-IN-24 competitively inhibits colchicine binding to tubulin with a K_i value of 3.6 μM[1]. Tubulin polymerization-IN-24 inhibits the progression of MCF-7 cells in mitosis and induces apoptotic cell death involving p53 pathway[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Chatterji BP, et al. HMBA depolymerizes microtubules, activates mitotic checkpoints and induces mitotic block in MCF-7 cells by binding at the colchicine site in tubulin. Biochem Pharmacol. 2010 Jul 1;80(1):50-61.

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