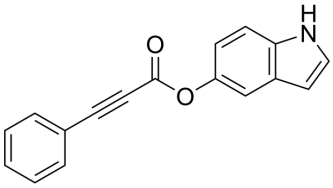
Antitumor agent-68

Cat. No.:	HY-146169
CAS No.:	2566497-96-7
Molecular Formula:	$C_{17}H_{11}NO_2$
Molecular Weight:	261.27
Target:	Reactive Oxygen Species; Microtubule/Tubulin
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antitumor agent-68 is a potent tubulin inhibitor. Antitumor agent-68 shows potent anticancer activity with IC_{50}s of 3.6 and 3.8 μM for HeLa and MCF-7 cells, respectively. Antitumor agent-68 exhibits good scavenging activity of ROS and DPPH radical in a dose-dependent manner[1]. Antitumor agent-68 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.
IC_{50} & Target	IC50: 3.6 μM (HeLa), 3.8 μM (MCF-7)[1]

In Vitro

Antitumor agent-68 (Compound 7) exhibits anticancer activity with IC_{50}s of 3.6 and 3.8 μM, for HeLa and MCF-7 cells, respectively[1].

Antitumor agent-68 (10 μM; 24 hours) causes a 3-fold reduction of ROS production induced by Men in 3T3-L1 cells, and an EC_{50} of DPPH radical scavenging is 8.30 μg/mL[1].

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

Cell Viability Assay[1]

Cell Line:	HeLa, MCF-7, 3T3-L1
Concentration:	10 μM
Incubation Time:	24 hours
Result:	Showed anticancer activity by blocking the tubulin polymerization reaction. Reduced production of ROS, and scavenged DPPH radical.

REFERENCES

[1]. Domenico Iacopetta, et al. Synthesis, anticancer and antioxidant properties of new indole and pyranoindole derivatives. Bioorg Chem. 2020 Dec;105:104440.

Caution: Product has not been fully validated for medical applications. For research use only.

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