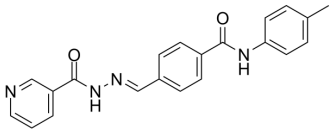
Antitumor agent-70

Cat. No.:	HY-149019
CAS No.:	2454133-88-9
Molecular Formula:	$C_{21}H_{18}N_4O_2$
Molecular Weight:	358.39
Target:	c-Kit; Apoptosis
Pathway:	Protein Tyrosine Kinase/RTK; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Antitumor agent-70 (compound 8b) has anti-tumor activity and can induce cell apoptosis. Antitumor agent-70 inhibits multiple myeloma with an IC_{50} value of 0.12 μM. Antitumor agent-70 is a potential multi-targeted kinase inhibitor especially for c-Kit[1].

In Vitro

Antitumor agent-70 (compound 8b) (0-50 μM, 24 hours) has excellent anti-tumor proliferative activity, especially against multiple myeloma cell RPMI8226[1].
Antitumor agent-70 (compound 8b) (0-0.2 μM, 24 hours) arrests the cell cycle in G0/G1 phase[1].
Antitumor agent-70 (compound 8b) (0-0.2 μM, 24 hours) can induce apoptosis to inhibit cell proliferation by promoting ROS release cells [1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	Human myeloma cell line U266, Human multiple myeloma cell line RPMI8226, Human umbilical vein endothelial cells HUVEC
Concentration:	0-50 μM
Incubation Time:	24 hours
Result:	Showed anti-proliferative activity against U266, RPMI8226, HUVEC with an IC_{50} value of 3.81 μM, 0.12 μM, 12.09 μM respectively.

Cell Cycle Analysis[1]

Cell Line:	RPMI8226
Concentration:	0-0.2 μM
Incubation Time:	24 hours
Result:	Showed a significant increase in the proportion of G0/G1 phase cells while S phase and G2/M phase decreased significantly.

Apoptosis Analysis[1]

Cell Line:	RPMI8226
Concentration:	0-0.2 μM
Incubation Time:	24 hours
Result:	Induced apoptosis rate increased with increasing concentration. Early apoptosis rate is higher than late apoptosis rate.

REFERENCES

[1]. Xin-Yang Li, et al. Design, synthesis and biological evaluation of novel (E)-N-phenyl-4-(pyridine-acylhydrazone) benzamide derivatives as potential antitumor agents for the treatment of multiple myeloma (MM). Bioorg Chem. 2020 Oct;103:104189.

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