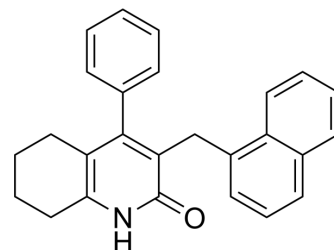


Antiproliferative agent-19

Cat. No.:	HY-152099
Molecular Formula:	C ₂₆ H ₂₃ NO
Molecular Weight:	365.47
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antiproliferative agent-19 (compound 4a) is an anti-cancer agent that exerts anti-proliferative effects on lung cancer cells by inducing apoptosis. antiproliferative agent-19 also induces cell cycle arrest in the G2/M phase ^[1] .																				
In Vitro	<p>Antiproliferative agent-19 (0-50 μM; 72 h) significantly inhibits the viability of human nonsmall cell lung cancer and colon cancer cells^[1].</p> <p>Antiproliferative agent-19 (11.33 μM; 24, 48, and 72 h) induces sub-G1 phase cell cycle arrest in A549 cells^[1].</p> <p>Antiproliferative agent-19 (11.33 μM; 6, 24 and 48 h) induces apoptosis via intrinsic and extrinsic pathways in A549 cells^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HCT-116 and A549 cells</td> </tr> <tr> <td>Concentration:</td> <td>0-50 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited the growth of HCT-116 and A549 cells with IC₅₀ values of 12.18 and 11.33 μM, respectively.</td> </tr> </table> <p>Cell Cycle Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>A549 cells</td> </tr> <tr> <td>Concentration:</td> <td>11.33 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24, 48, and 72 h</td> </tr> <tr> <td>Result:</td> <td>Increased cells of G2 phase significantly from 3.2% (DMSO-treated cells) to 15.5% and 33.8% (cells treated with the compound for 24 and 48 h, respectively).</td> </tr> </table> <p>Apoptosis Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>A549 cells</td> </tr> <tr> <td>Concentration:</td> <td>11.33 μM</td> </tr> </table>	Cell Line:	HCT-116 and A549 cells	Concentration:	0-50 μM	Incubation Time:	72 h	Result:	Inhibited the growth of HCT-116 and A549 cells with IC ₅₀ values of 12.18 and 11.33 μM, respectively.	Cell Line:	A549 cells	Concentration:	11.33 μM	Incubation Time:	24, 48, and 72 h	Result:	Increased cells of G2 phase significantly from 3.2% (DMSO-treated cells) to 15.5% and 33.8% (cells treated with the compound for 24 and 48 h, respectively).	Cell Line:	A549 cells	Concentration:	11.33 μM
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Incubation Time:	6, 24 and 48 h
Result:	Induced caspase-dependent cell death.

REFERENCES

[1]. Ryczkowska M, et al. Tetrahydroquinolinone derivatives exert antiproliferative effect on lung cancer cells through apoptosis induction. Sci Rep. 2022 Nov 9;12(1):19076.

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

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