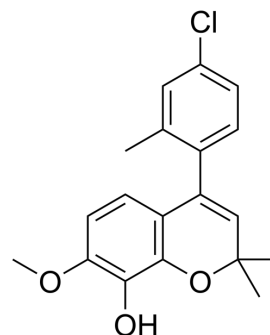


Neuroinflammatory-IN-3

Cat. No.:	HY-152088
CAS No.:	1202404-23-6
Molecular Formula:	C ₁₉ H ₁₉ ClO ₃
Molecular Weight:	330.81
Target:	Microtubule/Tubulin
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Neuroinflammatory-IN-3, a tubulin inhibitor, is an anti-neuroinflammatory agent. Neuroinflammatory-IN-3 is a potent antitumor agent that functions by the inhibition of tubulin polymerization ^[1] ^[2] .								
In Vitro	<p>Neuroinflammatory-IN-3 (compound 1) inhibits LPS-mediated NO release in BV-2 microglial cells down to 70% at a 10 μM concentration, with an IC₅₀ of 5.22 μM. Neuroinflammatory-IN-3 binds to the Colchicine-binding domain of tubulin^[1].</p> <p>Neuroinflammatory-IN-3 (compound 1; 72 hours) is antiproliferative toward HeLa, U266, A549, and MCF7 cell lines with IC₅₀ values of 450 nM, 416 nM, 381 nM, and 744 nM, respectively^[2].</p> <p>Neuroinflammatory-IN-3 (compound 1; 1 μM; 3-12 hours) triggers cell-cycle arrest in a time-dependent manner^[2].</p> <p>Neuroinflammatory-IN-3 (compound 1) inhibits tubulin polymerization in a dose-dependent manner^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cycle Analysis^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HeLa cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>3 h, 6 h, 12 h</td> </tr> <tr> <td>Result:</td> <td>Triggered cell-cycle arrest.</td> </tr> </table>	Cell Line:	HeLa cells	Concentration:	1 μM	Incubation Time:	3 h, 6 h, 12 h	Result:	Triggered cell-cycle arrest.
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Result:	Triggered cell-cycle arrest.								

REFERENCES

[1]. Junhyeong Yim, et al. Phenotype-based screening rediscovered benzopyran-embedded microtubule inhibitors as anti-neuroinflammatory agents by modulating the tubulin-p65 interaction. *Exp Mol Med*. 2022 Dec 12;1-10

[2]. Jongmin Park, et al. Discovery and target identification of an antiproliferative agent in live cells using fluorescence difference in two-dimensional gel electrophoresis. *Angew Chem Int Ed Engl*. 2012 May 29;51(22):5447-51.

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

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