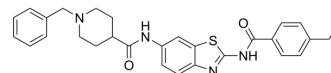


NAE-IN-1

Cat. No.:	HY-161268
Molecular Formula:	C ₂₉ H ₃₀ N ₄ O ₂ S
Molecular Weight:	498.64
Target:	Apoptosis; NEDD8-activating Enzyme; Reactive Oxygen Species
Pathway:	Apoptosis; Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	NAE-IN-1 (compound X-10) is a potent NAE1 inhibitor. NAE-IN-1 induces apoptosis and cell cycle arrest at the G2/M phase. NAE-IN-1 increases ROS levels and prevents cell migration. NAE-IN-1 shows anti-proliferation activity ^[1] .																						
In Vitro	<p>NAE-IN-1 (compound X-10) (1, 3, 5 μM; 24 h) decreases the expression of Cullin 1 and Cullin 3 in a dose-dependent manner in MGC-803 cells^[1].</p> <p>NAE-IN-1 (0, 1, 2, 4 μM; 24 h) induces cell cycle arrest at G2/M phase^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>A549, MGC-803, MCF-7, KYSE-30 cells</td> </tr> <tr> <td>Concentration:</td> <td>0-100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td></td> </tr> <tr> <td>Result:</td> <td>Showed anti-proliferation activity with IC₅₀s of 0.87, 1.63, 0.96, 0.65 μM for A549, MGC-803, MCF-7, KYSE-30 cells, respectively.</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>MGC-803 cells</td> </tr> <tr> <td>Concentration:</td> <td>1, 3, 5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Decreased the expression of Cullin 1 and Cullin 3 in a dose-dependent manner.</td> </tr> </table> <p>Cell Cycle Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>MGC-803 cells</td> </tr> <tr> <td>Concentration:</td> <td>0, 1, 2, 4 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> </table>	Cell Line:	A549, MGC-803, MCF-7, KYSE-30 cells	Concentration:	0-100 μM	Incubation Time:		Result:	Showed anti-proliferation activity with IC ₅₀ s of 0.87, 1.63, 0.96, 0.65 μM for A549, MGC-803, MCF-7, KYSE-30 cells, respectively.	Cell Line:	MGC-803 cells	Concentration:	1, 3, 5 μM	Incubation Time:	24 h	Result:	Decreased the expression of Cullin 1 and Cullin 3 in a dose-dependent manner.	Cell Line:	MGC-803 cells	Concentration:	0, 1, 2, 4 μM	Incubation Time:	24 h
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Result:	Induced cell cycle arrest at G2/M phase.
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REFERENCES

[1]. Wang X, et al. Identification of novel benzothiazole derivatives as inhibitors of NEDDylation pathway to inhibit the progression of gastric cancer. Bioorg Med Chem Lett. 2024 Mar 1;100:129647.

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

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