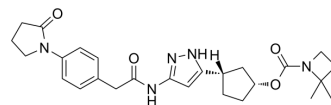


CDK2/MDM2-IN-1

Cat. No.:	HY-163357
Molecular Formula:	C ₂₆ H ₃₃ N ₅ O ₄
Molecular Weight:	479.57
Target:	CDK; MDM-2/p53
Pathway:	Cell Cycle/DNA Damage; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CDK2/MDM2-IN-1 (III-13) is a dual inhibitor of CDK2/MDM2 with an IC ₅₀ value of 2.60 nM for CDK2. CDK2/MDM2-IN-1 has antitumor activity ^[1] .								
In Vitro	<p>CDK2/MDM2-IN-1 (100, 200 nM, 4 h) inhibits the proliferation of tumor cells through CDK2/p-Rb and MDM2/p53 pathways^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HCT116, OVCAR3</td> </tr> <tr> <td>Concentration:</td> <td>100, 200 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>4 h</td> </tr> <tr> <td>Result:</td> <td>Reduced the expression of p-Rb, downstream of CDK2. Inhibited MDM2 protein expression and elevated p53 expression.</td> </tr> </table>	Cell Line:	HCT116, OVCAR3	Concentration:	100, 200 nM	Incubation Time:	4 h	Result:	Reduced the expression of p-Rb, downstream of CDK2. Inhibited MDM2 protein expression and elevated p53 expression.
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Concentration:	100, 200 nM								
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Result:	Reduced the expression of p-Rb, downstream of CDK2. Inhibited MDM2 protein expression and elevated p53 expression.								
In Vivo	<p>CDK2/MDM2-IN-1 (25, 50 mg/kg, intraperitoneal injection for 14 days) can significantly inhibit the proliferation of colon tumor cells in mice and does not affect the body weight of mice^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>A nude mouse model of HCT116 transplanted tumor^[1]</td> </tr> <tr> <td>Dosage:</td> <td>25, 50 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.p. for 14 days</td> </tr> <tr> <td>Result:</td> <td>Reduced tumor volume and weight.</td> </tr> </table>	Animal Model:	A nude mouse model of HCT116 transplanted tumor ^[1]	Dosage:	25, 50 mg/kg	Administration:	i.p. for 14 days	Result:	Reduced tumor volume and weight.
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REFERENCES

[1]. Liu Z, et al. Discovery of Novel Antitumor Small-Molecule Agent with Dual Action of CDK2/p-RB and MDM2/p53. *Molecules*. 2024 Feb 4;29(3):725.

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

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