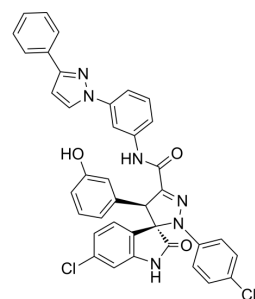


MDM2-p53-IN-15

Cat. No.:	HY-151172
Molecular Formula:	C ₃₈ H ₂₆ Cl ₂ N ₆ O ₃
Molecular Weight:	685.56
Target:	MDM-2/p53; Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



Relative stereochemistry

BIOLOGICAL ACTIVITY

Description	MDM2-p53-IN-15 is a MDM2-p53 inhibitor with an IC ₅₀ value of 26.1 nM. MDM2-p53-IN-15 inhibits the proliferation of various cancer cells and induces cell apoptosis. MDM2-p53-IN-15 can be used for the research of cancer ^[1] .																		
IC₅₀ & Target	IC ₅₀ : 26.1 nM (MDM2-p53) ^[1]																		
In Vitro	<p>MDM2-p53-IN-15 (1–100 μM; 48 h) inhibits HCT116 cells proliferation^[1].</p> <p>MDM2-p53-IN-15 (10–20 μM; 72–96 h) affects SJSA-1, LNCaP and MCF-7 proliferation^[1].</p> <p>MDM2-p53-IN-15 (10–15 μM; 96 h) affects cell death and apoptosis in SJSA1 cells^[1].</p> <p>MDM2-p53-IN-15 (0–1 μM; 1 h 30 min) dissociates MDM2-p53 complexes^[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>HCT116 cells</td> </tr> <tr> <td>Concentration:</td> <td>1–100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 hours</td> </tr> <tr> <td>Result:</td> <td>Showed antiproliferative activity to HCT116 cells with an IC₅₀ value of 18.8 μM.</td> </tr> </table> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>SJSA-1, LNCaP and MCF-7 cell lines</td> </tr> <tr> <td>Concentration:</td> <td>10–20 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 and 96 hours</td> </tr> <tr> <td>Result:</td> <td>Inhibited SJSA-1, LNCaP and MCF-7 cells proliferation with IC₅₀ values of 10.7, 11.4 and 9.7 μM, respectively.</td> </tr> </table> <p>Apoptosis Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>SJSA-1 cells</td> </tr> </table>	Cell Line:	HCT116 cells	Concentration:	1–100 μM	Incubation Time:	48 hours	Result:	Showed antiproliferative activity to HCT116 cells with an IC ₅₀ value of 18.8 μM.	Cell Line:	SJSA-1, LNCaP and MCF-7 cell lines	Concentration:	10–20 μM	Incubation Time:	72 and 96 hours	Result:	Inhibited SJSA-1, LNCaP and MCF-7 cells proliferation with IC ₅₀ values of 10.7, 11.4 and 9.7 μM, respectively.	Cell Line:	SJSA-1 cells
Cell Line:	HCT116 cells																		
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Result:	Inhibited SJSA-1, LNCaP and MCF-7 cells proliferation with IC ₅₀ values of 10.7, 11.4 and 9.7 μM, respectively.																		
Cell Line:	SJSA-1 cells																		

Concentration:	10-15 μ M
Incubation Time:	96 hours
Result:	Approximately 1.3-fold increased LDH releases at a concentration of 15 μ M approximately 1.3-fold increased and induced SJSA-1 cells death with loss of volume. Induced accumulation of cells in G0/G1 phase while decreased the percentage of cells in both S and G2/M phases, thus affects cell cycle.
Cell Viability Assay ^[1]	
Cell Line:	U87MG and SHSY-5Y cells
Concentration:	0-1 μ M
Incubation Time:	1 h 30 min
Result:	Selectively inhibited MDM2-p53 PPIs with an IC ₅₀ value of 26.1 nM, while inhibited MDM4-p53 PPIs with a lower potency with an IC ₅₀ value of 219 nM.

REFERENCES

[1]. Espadinha M, et al. Discovery of MDM2-p53 and MDM4-p53 protein-protein interactions small molecule dual inhibitors. Eur J Med Chem. 2022 Aug 5;241:114637.

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

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