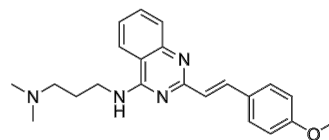


CP-31398

Cat. No.:	HY-18343
CAS No.:	259199-65-0
Molecular Formula:	C ₂₂ H ₂₆ N ₄ O
Molecular Weight:	362.47
Target:	MDM-2/p53; Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CP-31398 can stabilize the active conformation of p53 and promote p53 activity in cancer cells with either mutant or wild-type p53. In addition, CP-31398 can upregulate p53 target genes, such as p21WAF1/Cip1 and KILLER/DR5. CP-31398 exerts an inhibitory effect on tumor growth ^{[1][2][3]} .																
In Vitro	CP-31398 (36.75 μM, 16 h) induces p21 in p53-mutant cells^[1]. CP-31398 (15 μg/mL, 20 hours) could induce apoptosis and cell cycle arrest in SW480 cells^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis^[1] <table> <tr> <td>Cell Line:</td><td>Saos-2 cells expressing transfected mutant p53</td></tr> <tr> <td>Concentration:</td><td>36.75 μM</td></tr> <tr> <td>Incubation Time:</td><td>16 h</td></tr> <tr> <td>Result:</td><td>Induction of p21 in cells expressing only mutant p53.</td></tr> </table> Western Blot Analysis^[3] <table> <tr> <td>Cell Line:</td><td>LN-18 and U87MG cells</td></tr> <tr> <td>Concentration:</td><td>36 μM</td></tr> <tr> <td>Incubation Time:</td><td>16 h</td></tr> <tr> <td>Result:</td><td>Decreased the levels of procaspase 3 and induced cleavage of caspase 7.</td></tr> </table>	Cell Line:	Saos-2 cells expressing transfected mutant p53	Concentration:	36.75 μM	Incubation Time:	16 h	Result:	Induction of p21 in cells expressing only mutant p53.	Cell Line:	LN-18 and U87MG cells	Concentration:	36 μM	Incubation Time:	16 h	Result:	Decreased the levels of procaspase 3 and induced cleavage of caspase 7.
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Result:	Decreased the levels of procaspase 3 and induced cleavage of caspase 7.																
In Vivo	CP-31398 (100 mg/kg, orally, twice daily for 7 days) exhibits significant anti-tumor activity in mice models^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. <table> <tr> <td>Animal Model:</td><td>Small human tumor xenografts in mice^[1]</td></tr> <tr> <td>Dosage:</td><td>100 mg/kg</td></tr> </table>	Animal Model:	Small human tumor xenografts in mice ^[1]	Dosage:	100 mg/kg												
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Administration:	Orally twice daily for 7 days
Result:	Suppressed A375.S2 tumor growth by -50%.

REFERENCES

- [1]. B A Foster, et al. Pharmacological rescue of mutant p53 conformation and function. Science. 1999 Dec 24;286(5449):2507-10.
- [2]. Rishu Takimoto, et al. The Mutant p53-Conformation Modifying Drug, CP-31398, Can Induce Apoptosis of Human Cancer Cells and Can Stabilize Wild-Type p53 Protein. Cancer Biol Ther. Jan-Feb 2002;1(1):47-55.
- [3]. J Wischhusen, et al. CP-31398, a novel p53-stabilizing agent, induces p53-dependent and p53-independent glioma cell death. Oncogene. 2003 Nov 13;22(51):8233-45.

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