CP-31398 dihydrochloride

Cat. No.: HY-18343A

CAS No.: 1217195-61-3

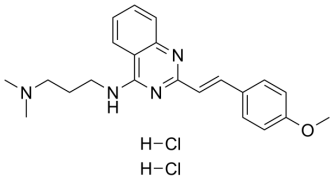
Molecular Formula: $C_{22}H_{28}Cl_2N_4O$

Molecular Weight: 435.39

Target: MDM-2/p53

Pathway: Apoptosis

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (459.36 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2968 mL	11.4840 mL	22.9679 mL
	5 mM	0.4594 mL	2.2968 mL	4.5936 mL
	10 mM	0.2297 mL	1.1484 mL	2.2968 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 0.83 mg/mL (1.91 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 0.83 mg/mL (1.91 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

CP-31398 dihydrochloride stabilizes the active conformation of p53 and promotes p53 activity in cancer cell lines with mutant or wild-type p53[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]

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.

Western Blot Analysis[3]

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.

In Vivo

CP-31398 (100 mg/kg, orally) exhibits significant anti-tumor activity in mice models[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Small human tumor xenografts in mice[1].
Dosage:	100 mg/kg.
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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA