Nedaplatin

Cat. No.: HY-13700

CAS No.: 95734-82-0

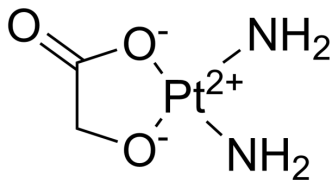
Molecular Formula: $C_2H_8N_2O_3Pt$

Molecular Weight: 303.18

Target: DNA/RNA Synthesis

Pathway: Cell Cycle/DNA Damage

Storage: Powder -20°C 3 years
4°C 2 years
* The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

H_2O : 8.33 mg/mL (27.48 mM; ultrasonic and warming and heat to 60°C; DMSO can inactivate Nedaplatin's activity)
DMF : < 1 mg/mL (insoluble; DMSO can inactivate Nedaplatin's activity)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2984 mL	16.4919 mL	32.9837 mL
	5 mM	0.6597 mL	3.2984 mL	6.5967 mL
	10 mM	0.3298 mL	1.6492 mL	3.2984 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 7.14 mg/mL (23.55 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

Nedaplatin (NSC 375101D) is a derivative of cisplatin and DNA damage agent.

In Vitro

Nedaplatin (NSC 375101D, NDP) is a derivative of cisplatin which produced less nausea & vomiting and nephrotoxicity. the effect of NDP on the 7-ethyl-1-hydroxy-CPT (the active form of CPT-11)-induced inhibitory effect on DNA topoisomerase I was examined. The topoisomerase I-inhibitory effect of 7-ethyl-1-hydroxy-CPT was enhanced 10-fold in the presence of Nedaplatin (NSC 375101D, NDP) at microgram/milliliter concentrations[1]. Nedaplatin (NSC 375101D, NDP) was developed as a second generation platinum complex. Because it has greater antitumour activity and lower nephrotoxicity than cisplatin (CDDP). At the high-dose of Nedaplatin (NSC 375101D, NDP) in FN therapy, a reduction of tumour size and long-term tumour-free survival were frequently observed. The survival effect of the combinations of Nedaplatin (NSC 375101D, NDP) with 5-FU was superior to those of the combination of CDDP with 5-FU. In conclusion, the sequence-dependent antitumour efficacy and toxicity of the combination of NDP or CDDP with 5-FU was demonstrated in this study, and FN therapy appeared to be the most efficient regimen as a clinical therapy[2].

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

CUSTOMER VALIDATION

- Vet Parasitol. 2023 Jun 14, 109972.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Kanzawa, F., et al., In vitro synergistic interactions between the cisplatin analogue nedaplatin and the DNA topoisomerase I inhibitor irinotecan and the mechanism of this interaction. Clin Cancer Res, 2001. 7(1): p. 202-9.

[2]. Uchida, N., et al., Sequence-dependent antitumour efficacy of combination chemotherapy of nedaplatin, a novel platinum complex, with 5-fluorouracil in an in vivo murine tumour model. Eur J Cancer, 1998. 34(11): p. 1796-801.

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