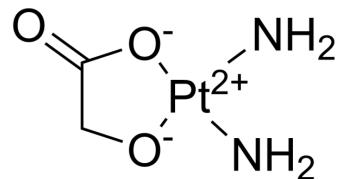


## Nedaplatin

|                    |   |       |         |
|--------------------|---|-------|---------|
| Cat. No.:          | HY-13700  |       |         |
| CAS No.:           | 95734-82-0  |       |         |
| Molecular Formula: | $\text{C}_2\text{H}_8\text{N}_2\text{O}_3\text{Pt}$ |       |         |
| 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

$\text{H}_2\text{O}$  : 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 | Concentration | Solvent Mass |            |            |
|---------------------------|---------------|--------------|------------|------------|
|                           |               | 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<sup>[1]</sup>. 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<sup>[2]</sup>.

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

## CUSTOMER VALIDATION

- Vet Parasitol. 2023 Jun 14; 109972.

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## 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.

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

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