

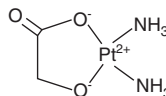
# PRODUCT INFORMATION



## Nedaplatin

Item No. 29001

**CAS Registry No.:** 95734-82-0  
**Formal Name:** (SP-4-3)-diammine[2-(hydroxy-κO)acetato(2-)-κO]-platinum  
**Synonym:** NSC 375101  
**MF:** C<sub>2</sub>H<sub>8</sub>N<sub>2</sub>O<sub>3</sub>Pt  
**FW:** 303.2  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Nedaplatin is supplied as a crystalline solid. A stock solution may be made by dissolving the nedaplatin in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Nedaplatin is a derivative of cisplatin (Item No. 13119) with anticancer activity.<sup>1</sup> Nedaplatin undergoes spontaneous hydrolysis to form platinum complexes that cross-link DNA resulting in apoptosis and cell death.<sup>2,3</sup> It inhibits the growth of human NUGC-4 gastric and KSE-1 esophageal squamous carcinoma cells (IC<sub>50</sub>s = 4.6 and 3.4 μM, respectively) and inhibits S to G<sub>2</sub> and G<sub>2</sub>/M to G<sub>1</sub> cell cycle progression.<sup>4</sup> Nedaplatin (44 mg/kg) decreases tumor volume and increases survival in a Lewis lung carcinoma syngeneic mouse model.<sup>1</sup> Nedaplatin (40 mg/kg) also decreases tumor volume in an HNC-3 head and neck cancer mouse xenograft model.<sup>5</sup> It exhibits reduced nephrotoxicity in rats compared with cisplatin.<sup>3</sup>

### References

1. Uchida, N., Takeda, Y., Hojo, K., *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* **34**(11), 1796-1801 (1998).
2. Alberto, M.E., Lucas, M.F.A., Pavelka, M., *et al.* The second-generation anticancer drug Nedaplatin: A theoretical investigation on the hydrolysis mechanism. *J. Phys. Chem. B* **113**(43), 14473-14479 (2009).
3. Hanada, K., Suda, M., Kanai, N., *et al.* Pharmacokinetics and toxicodynamics of oxaliplatin in rats: Application of a toxicity factor to explain differences in the nephrotoxicity and myelosuppression induced by oxaliplatin and the other platinum antitumor derivatives. *Pharm. Res.* **27**(9), 1893-1899 (2010).
4. Tanaka, R., Takii, Y., Shibata, Y., *et al.* In vitro sequence-dependent interaction between nedaplatin and paclitaxel in human cancer cell lines. *Cancer Chemother. Pharmacol.* **56**(3), 279-285 (2005).
5. Yamada, H., Maki, H., Takeda, Y., *et al.* Evaluation of combined nedaplatin and docetaxel therapy for human head and neck cancer *in vivo*. *Anticancer Res.* **26**(2A), 989-994 (2006).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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