

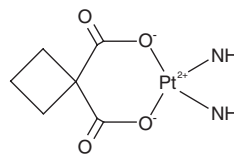
PRODUCT INFORMATION



Carboplatin

Item No. 13112

CAS Registry No.: 41575-94-4
Formal Name: (SP-4-2)-diammine[1,1-cyclobutanedicarboxylato(2-)-κO,κO']-platinum
Synonyms: CBDCA, CDDCA, cis-Diammine(1,1-cyclobutanedicarboxylato)platinum(II), NSC 201345, NSC 241240
MF: C₆H₁₂N₂O₄Pt
FW: 371.3
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

Carboplatin is supplied as a crystalline solid. Aqueous solutions of carboplatin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of carboplatin in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Carboplatin is a platinum-containing DNA-crosslinking agent.¹ It induces the formation of DNA interstrand crosslinks and DNA-protein crosslinks when used at concentrations of 200 and 300 μM. It inhibits the proliferation of GLC-4 small cell lung carcinoma and A2780 and SKOV3 ovarian cancer cells (IC₅₀s = 22.7, 0.5, and 10.2 μM, respectively).^{2,3} Carboplatin reduces tumor growth in an ADJ/PC6 murine plasmacytoma model (ED₉₀ = 0.6 mg/kg, i.p.).⁴ Formulations containing carboplatin have been used in the treatment of ovarian cancer.

References

1. Micetich, K.C., Barnes, D., and Erickson, L.C. A comparative study of the cytotoxicity and DNA-damaging effects of cis-(diammino)(1,1-cyclobutanedicarboxylato)-platinum(II) and cis-diamminedichloroplatinum(II) on L1210 cells. *Cancer Res.* **45(9)**, 4043-4047 (1985).
2. Groen, H.J., Sleijfer, S., Meijer, C., et al. Carboplatin- and cisplatin-induced potentiation of moderate-dose radiation cytotoxicity in human lung cancer cell lines. *Br. J. Cancer* **72(6)**, 1406-1411 (1995).
3. Al-Eisawi, Z., Beale, P., Chan, C., et al. Carboplatin and oxaliplatin in sequenced combination with bortezomib in ovarian tumour models. *J. Ovarian Res.* **6(1)**, 78 (2013).
4. Kelland, L.R., Abel, G., McKeage, M.J., et al. Preclinical antitumor evaluation of bis-acetato-ammine-dichloro-cyclohexylamine platinum(IV): An orally active platinum drug. *Cancer Res.* **53(11)**, 2581-2586 (1993).

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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