

Carboplatin

Catalog No: tcsc1121



Available Sizes

Size: 100mg

Size: 200mg

Size: 500mg



Specifications

CAS No:

41575-94-4

Formula:

$C_6H_{12}N_2O_4Pt$

Pathway:

Cell Cycle/DNA Damage;Cell Cycle/DNA Damage;Autophagy

Target:

DNA Alkylator/Crosslinker;DNA/RNA Synthesis;Autophagy

Purity / Grade:

>98%

Solubility:

H2O : 4.9 mg/mL (13.20 mM; Need ultrasonic and warming)

Alternative Names:

NSC 241240

Observed Molecular Weight:

371.25

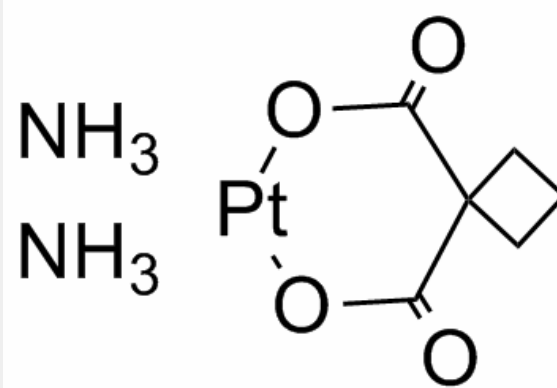
Product Description

Carboplatin (NSC 241240) is a **DNA synthesis** inhibitor which binds to DNA, inhibits replication and transcription and induces cell death. Carboplatin (NSC 241240) is a derivative of cisplatin and a potent anti-cancer agent.

IC₅₀ & Target: DNA Alkylator^[1]

In Vitro: Carboplatin is an antitumor agent, with an increased DNA-binding activity in the presence of nucleophiles and human breast cancer MCF-7 cell cytoplasmic extracts^[1]. Carboplatin is less cytotoxic to human ovarian cells such as A2780, SKOV3, IGROV1 and HX62 than 17-AAG, with IC₅₀s of 6.177, 12.442, 2.233 and 116.068 μ M, respectively. Moreover, Carboplatin does not affect HSP90 or change the activity of 17-AAG to inhibit HSP90^[2]. Carboplatin reduces the viability of Brca1 (IC₅₀, 3.4 μ M) and Brca2 cells (IC₅₀, 1.9 μ M). Carboplatin (25 μ M) combined with ABT-888 also shows an apoptotic effect in BRCA1 cells^[3].

In Vivo: Carboplatin (60 mg/kg, i.p.) shows a modest effect on the tumor, but significantly inhibits tumor growth in combination with 17-AAG in mice bearing A2780 human ovarian cancer xenografts^[2]. Carboplatin (25 mg/kg, p.o.) combined with ABT-888 delays tumor growth in Brca2 xenografts^[3].



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