

# Cisplatin

Catalog No: **tcsc1122**



## Available Sizes

**Size:** 100mg

**Size:** 500mg



## Specifications

**CAS No:**

15663-27-1

**Formula:**

$\text{Cl}_2\text{H}_6\text{N}_2\text{Pt}$

**Pathway:**

Cell Cycle/DNA Damage

**Target:**

DNA Alkylator/Crosslinker

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O : 1 mg/mL (3.33 mM; Need ultrasonic and warming); DMF : 14.17 mg/mL (47.23 mM; Need ultrasonic and warming)

**Alternative Names:**

CDDP; cis-Diaminodichloroplatinum

**Observed Molecular Weight:**

300.05

## Product Description

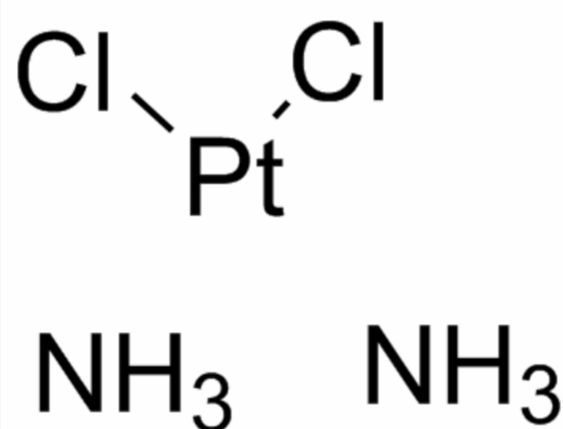
Cisplatin is a antineoplastic chemotherapy drug which works by cross-linking with **DNA** and causing DNA damage in cancer cells.

IC50 & Target: DNA Alkylator/Crosslinker<sup>[1]</sup>

***In Vitro:*** Cisplatin (CDDP) causes apoptosis of HeLa cells in a dose-dependent manner, with a concentration of 30 μM Cisplatin resulting in death of greater than 90% of the cell population by 24 h of treatment. The kinetics of Cisplatin-induced apoptosis are examined using a 30 μM concentration. Cisplatin Activates the MEK/ERK Signaling Pathway, 20 and 30 μM Cisplatin, both of which results in significant apoptosis, leads to strong activation of ERK<sup>[1]</sup>. Cisplatin (50 μM) produces time-dependent apoptosis in renal proximal tubular cell (RPTCs), causing cell shrinkage, a 50-fold increase in caspase 3 activity, a 4-fold increase in phosphatidylserine externalization, and 5- and 15-fold increases in chromatin condensation and DNA hypoploidy, respectively<sup>[2]</sup>.

***In Vivo:*** In melanoma-bearing mice, Cisplatin (4 mg/kg B.W.) reduces the size and weight of the solid tumors, and HemoHIM supplementation with Cisplatin enhances the decrease of both the tumor size and weight<sup>[3]</sup>. Cisplatin administration results in significant increases in the kidney weight as a percentage of the total body weight, urine volume, serum creatinine, and blood urea nitrogen

by about 132, 315, 797, and 556% in comparison with the control rats, respectively<sup>[4]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!