Catalog # 10-2204

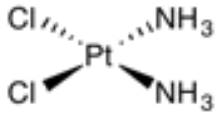
Cisplatin

CAS# 15663-27-1

Cis-Diaminodichloroplatium

CDDP; cic-Diamineplatinum(II) dichloride

Lot # X106257



Induces intra- and interstrand DNA adducts which poison topoisomerase I.[1] Synergizes with topoisomerase I inhibitors such as topotecan.[1] Induces apoptosis by sequential activation of caspase-8, -3 and -6 in osteosarcoma cells.[2] Inhibits expression of X-linked inhibitor of apoptosis protein (XIAP) in human LNCaP cells.[3] Numerous mechanisms inhibit propagation of cisplatin-induced DNA damage to signal apoptosis resulting in resistance.[4] Clinically useful anticancer agent.

1) Van Waardenburg *et al*. (2004), *Platinated DNA adducts enhance poisoning of DNA topoisomerase I by camptothecin*; J. Biol. Chem,, **279** 54502
2) Siddik *et al*. (2003), *Cisplatin: mode of cytotoxic action and molecular basis of resistance*; Oncogene, **22** 7265
3) Seki *et al*. (2000), *Cisplatin (CDDP) specifically induces apoptosis via sequential activation of caspase-8, -3 and -6 in osteosarcoma*; Cancer Chemother. Pharmacol., **45** 199
4) Nomura *et al*. (2004), *Cisplatin inhibits the expression of X-linked inhibitor of apoptosis protein in human LNCaP cells*; Urol. Oncol., **22** 453
5) Raghavan *et al*. (2015), *Dimethylsulfoxide inactivates the anticancer effect of cisplatin against myelogenous leukemia cell lines in in vitro assays.*; Indian J. Phamracol., **47** 322

PHYSICAL DATA

Molecular Weight:	300.05
Molecular Formula:	$Cl_2H_6N_2Pt$
Purity:	98% by HPLC
	Elemental Analysis: (Conforms)
Solubility:	Soluble in Water (up to 2.5 mg/ml with warming)
	Note: Compound will dissolve in DMSO, but DMSO inactivates cytotoxicity.[5]
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied, desiccated at room temperature for up to 1 year from the date of purchase. Solutions in distilled water are not stable and must be used within one working day. Do not store solutions.

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