



Certificate of Analysis

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Product Name: Cisplatin Catalog No.: 2251 Batch No.: 6

CAS Number: 15663-27-1 EC Number: 239-733-8

IUPAC Name: *cis*-Diaminodichloroplatinum

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $Cl_2H_6N_2Pt$ Batch Molecular Weight:300.05Physical Appearance:Yellow solid

Solubility: water to 5 mM with gentle warming

Storage: Store at RT

Batch Molecular Structure:

 $_{\rm H_3N}^{\rm OI}$ Pt $^{\rm OI}_{
m NH_3}$

2. ANALYTICAL DATA

Microanalysis: Carbon Hydrogen Nitrogen Chlorine Platinum

Theoretical 2.02 9.34 23.63 65.02 Found 2.26 9.31 23.13 64.44



Product Information

Print Date: Apr 28th 2023

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CAS Number: 15663-27-1 EC Number: 239-733-8

IUPAC Name: *cis*-Diaminodichloroplatinum

Description:

Cisplatin is a potent anticancer agent that blocks DNA synthesis. Induces apoptosis via p53-dependent and -independent mechanisms. Inhibits X-linked inhibitor of apoptosis protein (XIAP) expression and activates caspase-3. In certain glioma cell lines, sensitizes cells to TNF- α -induced apoptosis.

Physical and Chemical Properties:

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Batch Molecular Structure:

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Solubility & Usage Info:

water to 5 mM with gentle warming

Even though it is soluble in DMSO, the use of DMSO to dissolve cisplatin in biological studies is not recommended. The DMSO was found to insert itself into the ligand.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Duan *et al* (2004) Impairment of both apoptotic and cytoprotective signalings in glioma cells resistant to the combined use of cisp. and tumor necrosis factor α. Clin.Cancer Res. *10* 234. PMID: 14734475.

Nomura et al (2004) Cisplatin inhibits the expression of X-linked inhibitor of apoptosis protein in human LNCaP cells. Urol.Oncology 22 453.

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. PMID: 10663637.