

## Certificate of Analysis

Catalog Number	BP10653
Product Name	Cisplatin

## Physical and Chemical Properties

Synonyms	CDDP, cis-Diaminodichloroplatinum
CAS No.	15663-27-1
Chemical Formula	Cl <sub>2</sub> H <sub>6</sub> N <sub>2</sub> Pt
Molecular Weight	300.05
Solubility	DMF: 3 mg/mL
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	$  \begin{array}{c}  \text{NH}_3 \\    \\  \text{Cl}-\text{Pt}-\text{NH}_3 \\    \\  \text{Cl}  \end{array}  $

## Product Information

Description	Cisplatin, a DNA-crosslinking agent, is able to suppress DNA synthesis by conforming DNA adducts in cancer cells.
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In vitro	<p>Rabbit renal proximal tubules were isolated using the iron oxide perfusion method and grown in 35-mm tissue culture dishes under improved conditions as described previously. The cell culture medium was a 1:1 mixture of Dulbecco's modified Eagle's medium/Ham's F-12 (without D-glucose, phenol red, or sodium pyruvate) supplemented with 15 mM HEPES buffer, 2.5 mM L-glutamine, 1 <math>\mu</math>M pyridoxine HCl, 15 mM sodium bicarbonate, and 6 mM lactate. Hydrocortisone (50 nM), selenium (5 ng/ml), human transferrin (5 <math>\mu</math>g/ml), bovine insulin (10 nM), and L-ascorbic acid-2-phosphate (50 <math>\mu</math>M) were added to fresh culture medium immediately before daily media change. In general, confluent RPTCs were treated with inhibitors or diluent control [typically DMSO at 0.1% (v/v)] for 30 min before treatment with cisplatin. Aliquots of RPTCs were used for various assays as detailed below.</p>
In vivo	<p>Mice were divided randomly into three groups (Control, Cisplatin and Cisplatin+HemoHIM), and each group consisted of twenty mice. B16F0 melanoma (<math>5 \times 10^5</math> cells/mouse) was inoculated into subcutaneous femoral left region of mice at 3 days before an initial injection of cisplatin. Cisplatin was injected intraperitoneally at 4 mg/kg body weight (B.W.) on day 0, 7 and 14 (total three injections). Experimental group was intubated with HemoHIM at a final concentration of 100 mg/kgB.W. by everyday from day -1 to day 16, while the control group received only water. On day 17 after initial injection of cisplatin, all mice of each group were experimented, respectively, to evaluate tumor weight or tumor size. The tumor size was calculated as follows: tumor size = <math>ab^2/2</math>, where a and b are the larger and smaller diameters, respectively.</p>

## Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	<p>Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.</p>

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v2 Revision on 12/28/2022

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