



Certificate of Analysis

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Product Name: Oxaliplatin Catalog No.: 2623 Batch No.: 6

CAS Number: 61825-94-3

IUPAC Name: Oxalato[(1R-trans)-1,2-cyclohexanediamine]platinum(II)

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_8H_{14}N_2O_4Pt.$

Batch Molecular Weight: 397.29 **Physical Appearance:** White solid

Solubility: water to 5 mM with gentle warming

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 24.19 3.55 7.05 Found 24.09 3.41 6.88

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use



Product Information

Print Date: Jul 7th 2021

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IUPAC Name: Oxalato[(1R-trans)-1,2-cyclohexanediamine]platinum(II)

Description:

Oxaliplatin is an antitumor agent that forms platinum-DNA adducts. Causes intra- and interstrand DNA crosslinks blocking DNA replication and transcription. Displays higher cytotoxicity and lower nephrotoxicity than analog cisplatin (Cat. No. 2251) and shows antitumor activity in cell lines with acquired cisplatin resistance.

Physical and Chemical Properties:

Batch Molecular Formula: C₈H₁₄N₂O₄Pt.

Batch Molecular Weight: 397.29 Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

water to 5 mM with gentle warming

Even though it is soluble in DMSO, the use of DMSO to dissolve Oxaliplatin in biological studies should be strongly discouraged. The DMSO was found to insert itself into the ligand, resulting in loss of activity. See Hall *et al.* (2014), Cancer research published online. PMID: 24812268. Solubilizing this product in water may require extended warming at 45°C for up to 30 minutes and some sonication.

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:

Mani et al (2002) Oxaliplatin: a review of evolving concepts. Cancer Invest. 20 246. PMID: 11901545.

Raymond et al (2002) Cellular and molecular pharmacology of oxalip. Mol.Cancer Ther. 1 227. PMID: 12467217.

Culy et al (2000) Oxaliplatin. A review of its pharmacological properties and clinical efficacy in metastatic colorectal cancer and its potential in other malignancies. Drugs 60 895. PMID: 11085200.