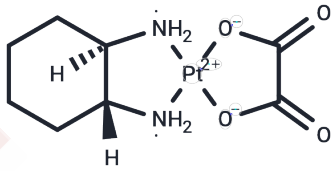
Data Sheet (Cat.No.T61870)

TargetMol

(rel)-Oxaliplatin

Chemical Properties



CAS No. : 63121-00-6

Formula: C8H14N2O4Pt

Molecular Weight: 397.29

Storage: Keep away from direct sunlight,The compound is unstable in solution. Please use soon
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	(rel)-Oxaliplatin, a DNA synthesis inhibitor, induces DNA crosslinking damage, inhibits DNA replication and transcription, and stimulates apoptosis. This compound has applications in cancer research [1] [2] [3].
Targets(IC50)	Apoptosis,Others,DNA/RNA Synthesis
In vitro	(rel)-Oxaliplatin demonstrates potent anticancer activity through various mechanisms across multiple cell lines. When applied to HCC, HCCLM3, and Hep3B cells for 24-72 hours at concentrations of 2-128 μM, it inhibits cell proliferation and triggers apoptosis. In CEM cells exposed for 15-240 minutes at 10 μM, it induces both primary and secondary DNA damage, specifically interstrand DNA cross-links (ISC) and DNA-protein cross-links (DPC). Additionally, (rel)-Oxaliplatin shows significant cytotoxicity against a diverse panel of cancer cell lines, including bladder carcinoma (RT4, TCCSUP), ovarian carcinoma (A2780), colon carcinoma (HT-29), glioblastoma (U-373MG, U-87MG), and melanoma (SK-MEL-2, HT-144), with IC50 values ranging from 0.17 to 30.9 μM after 24 hours of exposure. Detailed analyses on cell viability, protein expression, and cell cycle progression reveal its mechanisms of action, such as dose- and time-dependent reductions in cell viability, modulation of apoptotic protein expression (decreasing Bcl-2 and Bcl-xL, increasing Bax), and an increase in the percentage of apoptotic cells, thus demonstrating its broad and effective anti-tumor activities.
In vivo	(rel)-Oxaliplatin, administered intraperitoneally at dosages of 5-10 mg/kg over a period of 32 days, effectively inhibits tumor growth in nude mice. This was observed in a study using HCCLM3 tumor xenografts, where the treatment resulted in a significant reduction in tumor volume.

Solubility Information

Solubility	DMSO: Slightly soluble,DMSO inactivates the activity of (rel)-Oxaliplatin. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5171 mL	12.5853 mL	25.1705 mL
5 mM	0.5034 mL	2.5171 mL	5.0341 mL
10 mM	0.2517 mL	1.2585 mL	2.5171 mL
50 mM	0.0503 mL	0.2517 mL	0.5034 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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