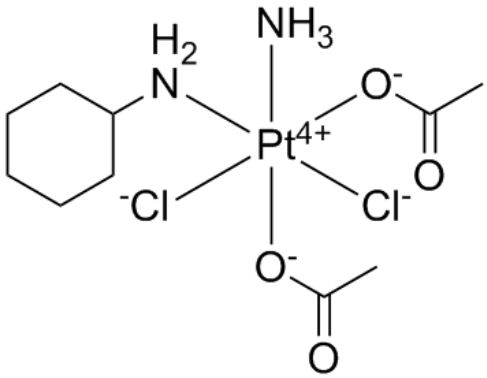
Product Data Sheet

Product Name: Satraplatin
Cat. No.: GC37593

Chemical Properties

Cas. No.	129580-63-8		
SMILES	[Cl-][Pt+4]([O-]C(C)=O)([O-]C(C)=O)([Cl-])([NH3])[NH2]C1CCCCC1		
Formula	$C_{10}H_{22}Cl_2N_2O_4Pt$	M.Wt	500.28
Solubility	DMSO: ≥ 33 mg/mL (65.96 mM; DMSO can inactivate Satraplatin's activity)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Protocol

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Cell experiment: Cells are harvested, counted and distributed to microtiter plates in 100 μL medium at a density of 1×104 cells/well. Appropriate dilutions of test compounds (Satraplatin, etc.) are added to a total volume of 200 μL/well and plates incubated under tissue culture conditions for four days. Stock solutions of the compounds are prepared in either 70% ethanol or DMSO and diluted more than 100-fold for the assays. Solvent controls are included in all tests. Dose response curves are obtained by assessing cell proliferation at twofold drug dilutions in triplicate and used for calculation of IC50 values. Cell growth is quantified using a modified tetrazolium dye assay (MTT) and by measurement of the reduced formazane dye at 450 nm wavelength (medium control set to 100% proliferation) [1].

References:

[1]. Fiebiger W, et al. In vitro cytotoxicity of novel platinum-based drugs and dichloroacetate against lung carcinoid cell lines. Clin Transl Oncol. 2011 Jan;13(1):43-9.
[2]. Yamano Y, et al. Antitumor activity of satraplatin in cisplatin-resistant oral squamous cell carcinoma cells. Head Neck. 2011 Mar;33(3):309-17.

Background

Satraplatin is an alkylating agent, with potent antitumor effect.

Satraplatin has potent antitumor activity. Satraplatin combined with dichloroacetate (DCA) inhibits UMC-11 cells with an IC50 of 1.36 ± 0.11 μM[1]. Satraplatin also suppresses CDDP-resistant (KB-R) cells (IC50, 7.04 μM), and causes G2/M arrest in KB-R cells[2].

[1]. Fiebiger W, et al. In vitro cytotoxicity of novel platinum-based drugs and dichloroacetate against lung carcinoid cell lines. Clin Transl Oncol. 2011 Jan;13(1):43-9. [2]. Yamano Y, et al. Antitumor activity of satraplatin in cisplatin-resistant oral squamous cell carcinoma cells. Head Neck. 2011 Mar;33(3):309-17.