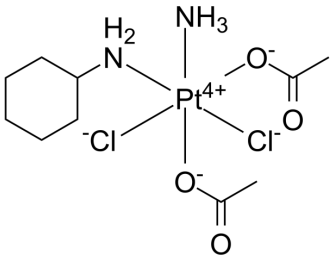
Satraplatin

Cat. No.:	HY-17576
CAS No.:	129580-63-8
Molecular Formula:	$C_{10}H_{22}Cl_2N_2O_4Pt$
Molecular Weight:	500.28
Target:	DNA Alkylator/Crosslinker
Pathway:	Cell Cycle/DNA Damage
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMF : 10 mg/mL (19.99 mM; ultrasonic and adjust pH to 1 with HCl; DMSO can inactivate Satraplatin's activity)
Ethanol : < 1 mg/mL (insoluble; DMSO can inactivate Satraplatin's activity)
H_2O : < 0.1 mg/mL (insoluble; DMSO can inactivate Satraplatin's activity)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.9989 mL	9.9944 mL	19.9888 mL
5 mM	0.3998 mL	1.9989 mL	3.9978 mL
10 mM	0.1999 mL	0.9994 mL	1.9989 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Satraplatin is an alkylating agent, with potent antitumor effect.

In Vitro

Satraplatin needs to avoid light in the solution, and it is unstable in the alkaline state but stable in the acidic state. Satraplatin has potent antitumor activity. Satraplatin combined with dichloroacetate (DCA) inhibits UMC-11 cells with an IC_{50} of 1.36 ± 0.11 μM[1]. Satraplatin also suppresses CDDP-resistant (KB-R) cells (IC_{50}, 7.04 μM), and causes G2/M arrest in KB-R cells[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [1]

Cells are harvested, counted and distributed to microtiter plates in 100 μL medium at a density of 1×10^4 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 IC_{50} 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].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA