

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

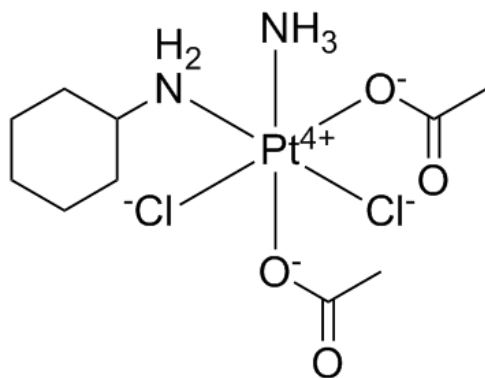
Formula $C_{10}H_{22}Cl_2N_2O_4Pt$ M.Wt 500.28

Solubility DMSO: ≥ 33 mg/mL (65.96 mM; Storage Store at $-20^{\circ}C$
DMSO can inactivate Satraplatin's activity)

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

Caution: Product has not been fully validated for medical applications. For research use only.

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Cell experiment: Cells are harvested, counted and distributed to microtiter plates in 100 μ L 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 μ L/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 μ M[1]. Satraplatin also suppresses CDDP-resistant (KB-R) cells (IC₅₀, 7.04 μ M), 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.

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