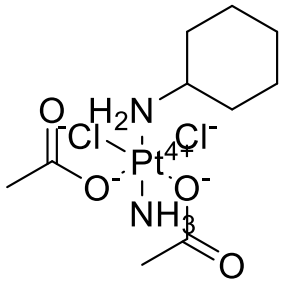
Product data sheet

MedKoo Cat#: 202570 Name: Satraplatin CAS: 129580-63-8 Chemical Formula: $C_{10}H_{22}Cl_2N_2O_4Pt$ Exact Mass: 499.0604 Molecular Weight: 500.28	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
Satraplatin, also known as JM216 and BMS182751, is a platinum compound that is currently under investigation as one treatment of patients with advanced prostate cancer who have failed previous chemotherapy. It has not yet received approval from the U.S. Food and Drug Administration. Satraplatin is the first orally active platinum-based chemotherapeutic drug.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	10	19.99

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.00 mL	9.99 mL	19.99 mL
5 mM	0.40 mL	2.00 mL	4.00 mL
10 mM	0.20 mL	1.00 mL	2.00 mL
50 mM	0.04 mL	0.20 mL	0.40 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Chen D, Zhang X, Yang J, Liao X, Yang B, Gao C. Codelivery of satraplatin and aminopyrrolic receptor with Pluronic F127-based polyaniline nanoparticles with NIR induced release for combined chemotherapy. Nanotechnology. 2021 Sep 2;32(47). doi: 10.1088/1361-6528/ac1d78. PMID: 34388738.
2. Yamano Y, Shiiba M, Negoro K, Nakatani K, Kasamatsu A, Yamatoji M, Sakuma K, Ogoshi K, Iyoda M, Shinozuka K, Yokoe H, Wada T, Fujita S, Iwasawa S, Takiguchi Y, Tanzawa H, Uzawa K. Antitumor activity of satraplatin in cisplatin-resistant oral squamous cell carcinoma cells. Head Neck. 2011 Mar;33(3):309-17. doi: 10.1002/hed.21445. PMID: 20848452.

In vivo study

1. Marcus L, Murphy R, Fox E, McCully C, Cruz R, Warren KE, Meyer T, McNiff E, Balis FM, Widemann BC. The plasma and cerebrospinal fluid pharmacokinetics of the platinum analog satraplatin after intravenous administration in non-human primates. Cancer Chemother Pharmacol. 2012 Jan;69(1):247-52. doi: 10.1007/s00280-011-1659-z. Epub 2011 Jun 26. PMID: 21706317; PMCID: PMC6300136.
2. Selting KA, Wang X, Gustafson DL, Henry CJ, Villamil JA, McCaw DL, Tate D, Beittenmiller M, Garnett C, Robertson JD. Evaluation of satraplatin in dogs with spontaneously occurring malignant tumors. J Vet Intern Med. 2011 Jul-Aug;25(4):909-15. doi: 10.1111/j.1939-1676.2011.0727.x. Epub 2011 May 12. PMID: 21564292.

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7. Bioactivity

Biological target:

Satraplatin is an alkylating agent.

In vitro activity

Satraplatin displays greater antiproliferative effects than cisplatin in lymphoma cell lines. Specific gene mutations, including MTAP deficiency, are key factors associated with heightened sensitivity to satraplatin. This distinct activity profile and the presence of MTAP deficiency make satraplatin a promising candidate for targeted therapies in certain lymphatic malignancies, like primary central nervous system lymphoma and cutaneous T-cell lymphoma.

Reference: Nanotechnology. 2021 Sep 2;32(47). https://pubmed.ncbi.nlm.nih.gov/34388738/

In vivo activity

In a non-human primate study, satraplatin was well-tolerated and had presence in the central nervous system. Despite its greater lipophilicity, satraplatin's CSF penetration was similar to that of carboplatin and cisplatin. These findings support the development of phase I trials for satraplatin in treating childhood solid tumors.

Reference: Cancer Chemother Pharmacol. 2012 Jan;69(1):247-52. https://pubmed.ncbi.nlm.nih.gov/21706317/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.