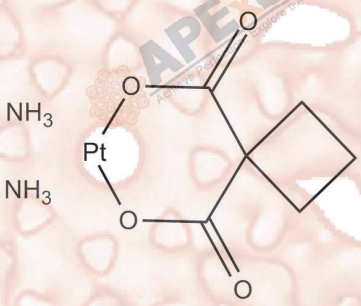
Product Data Sheet

Carboplatin

Cat. No.:	A2171
CAS No.:	41575-94-4
Formula:	C6H12N2O4Pt
M.Wt:	371.26
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	DNA Synthesis
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

insoluble in ETOH; ⩾9.28 mg/mL in H2O with gentle warming,insoluble in ETOH

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.6936 mL	13.4680 mL	26.9360 mL
5 mM	0.5387 mL	2.6936 mL	5.3872 mL
10 mM	0.2694 mL	1.3468 mL	2.6936 mL

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

Biological Activity

Shortsummary	Antitumor agent that forms platinum-DNA adducts.
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	A2780, SKOV3, IGROV-1 and HX62 cells
Preparation method:	The solubility of this compound in DMSO is limited. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions:	0 ~ 200 μM; 72 hrs

	Applications:	In a panel of human ovarian cancer cell lines, e.g. A2780, SKOV3 and IGROV-1 cells, Carboplatin significantly inhibited cell proliferation, with the IC50 values of 6.1 μM, 12.4 μM and 2.2 μM, respectively. When it was combined with 17-allylamino-17-demethoxygeldanamycin (17-AAG), antagonism instead of synergistic effect was indicated.
In Vivo	**Animal experiment**	
	Animal models:	Nude mice bearing A2780 tumors
	Dosage form:	60 mg/kg; i.p.
	Applications:	In nude mice bearing A2780 tumors, Carboplatin alone exhibited a modest antitumor effect, with the relative tumor volume of 8.4 on day 6. Moreover, the tumor weight relative to control (T/C) was 67%. When Carboplatin was combined 17-AAG, significantly greater antitumor activity was shown with the relative tumor volume and the T/C value reduced to 4.2 and 22% on day 6, respectively.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Banerji U, Sain N, Sharp SY, et al. An in vitro and in vivo study of the combination of the heat shock protein inhibitor 17-allylamino-17-demethoxygeldanamycin and carboplatin in human ovarian cancer models. Cancer Chemother Pharmacol, 2008, 62(5): 769-778.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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