**Product Data Sheet**

### Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Name:</strong></td>
<td>Carboplatin</td>
</tr>
<tr>
<td><strong>Cas No.</strong></td>
<td>41575-94-4</td>
</tr>
<tr>
<td><strong>M.Wt.</strong></td>
<td>371.25</td>
</tr>
<tr>
<td><strong>Formula:</strong></td>
<td>C6H12N2O4Pt</td>
</tr>
</tbody>
</table>

- **Chemical Name:** azane;cyclobutane-1,1-dicarboxylate;platinum(2+)
- **Canonical SMILES:** C1CC(C1)(C(=O)[O-])C(=O)[O-].N.N.[Pt+2]
- **Solubility:** Limited solubility
- **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.
- **Shopping Condition:** Evaluation sample solution: ship with blue ice
  All other available size: ship with RT, or blue ice upon request

### Biological Activity

- **Targets:** DNA Synthesis
- **Pathways:** DNA Damage/DNA Repair >> DNA Synthesis
- **Description:**
  Carboplatin is a DNA synthesis inhibitor. DNA synthesis is the natural or artificial creation of deoxyribonucleic acid (DNA) molecules. Carboplatin inhibits DNA synthesis by binding to DNA and interfering with repair mechanism. In MTT assays with A2780, SKOV-3, IGROV-1 and HX62 human ovarian cancer cells, Carboplatin inhibited cell proliferation with IC50 of 6.2 μM, 12.4 μM, 2.2 μM and 116 μM for A2780, SKOV-3,
IGROV-1 and HX62, respectively [1]. In UMC-11, H727 and H835 lung carcinoid cell line, Carboplatin also shows the anti-proliferative activities [2].

In xenograft-bearing mice, Carboplatin (60 mg/kg) had a modest antitumor effect and the relative tumor volumes on day 6 were 8.4 relative to the control of 11.9 [1]. Treatment of 56 small cell lung carcinoma patients with Carboplatin (300-400 mg/m²), 23 patients achieved a response including 5 complete remissions. 18 of 30 previously untreated patients achieved a response. Carboplatin was well tolerated and there was no nephrotoxicity [3].

Reference:


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. Short-term 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.