Product Data Sheet

Chemical Properties

Product Name: Carprofen
Cas No.: 53716-49-7
M.Wt: 273.71
Formula: C15 H12CINO2
Chemical Name: 2-(6-chloro-9H-carbazol-2-yl)propanoic acid
Canonical SMILES: CC(C1=CC2=C(C=C1)C3=C(N2)C=CC(=C3)Cl)C(=O)O
Solubility: $\geq 11.05$mg/mL in DMSO
Storage: Store at $-20^\circ$C
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.
Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets:
Pathways:
Description:
Carprofen inhibits canine COX2 with IC50 of 0.03 mM.

Reference:

Protocol

Cell experiment:
<table>
<thead>
<tr>
<th>Cell lines</th>
<th>gastric mucosa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation method</td>
<td>The solubility of this compound in DMSO is &gt;11.1mg/mL. 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.</td>
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<tr>
<td>Reacting conditions</td>
<td></td>
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<tr>
<td>Applications</td>
<td>In the gastric mucosa of dogs, carprofen increased in vitro conductance and permeability to mannitol. Carprofen (400 μg/mL) caused sloughing of epithelial cells. Carprofen appeared to compromise gastric mucosal integrity and barrier function in dogs.</td>
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</tbody>
</table>

**Animal experiment [3]:**

- **Animal models**: Dogs with chronic unilateral osteoarthritis of the stifle joint
- **Dosage form**: 10 days with a 30- to 60-day washout period
- **Applications**: Carprofen significantly suppressed PGE2 concentrations in blood at days 3 and 10. Carprofen significantly decreased gastric synthesis of PGE2 at day 3 but not day 10 of each treatment period. Carprofen decreased synovial fluid PGE2 concentrations in the affected and unaffected stifle joints at days 3 and 10.
- **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.

**Reference:**


**Caution**

FOR RESEARCH PURPOSES ONLY.
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.