(+)-Cloprostenol

Cat. No.: HY-107381
CAS No.: 54276-21-0
Molecular Formula: C₂₂H₂₉ClO₆
Molecular Weight: 424.92
Target: Prostaglandin Receptor
Pathway: GPCR/G Protein
Storage: Pure form -20°C 3 years
        4°C  2 years
        In solvent -80°C 6 months
        -20°C 1 month

Solvent & Solubility

<table>
<thead>
<tr>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.3534 mL</td>
<td>11.7669 mL</td>
<td>23.5338 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4707 mL</td>
<td>2.3534 mL</td>
<td>4.7068 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2353 mL</td>
<td>1.1767 mL</td>
<td>2.3534 mL</td>
</tr>
</tbody>
</table>

In Vitro 10 mM in DMSO

Preparing Stock Solutions

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

BIOLOGICAL ACTIVITY

Description (+)-Cloprostenol is a prostaglandin F2α (PGF2α) analogue, and shows selective agonistic activity at the prostaglandin receptor.

IC₅₀ & Target PGF2α

In Vitro D-Cloprostenol and PGF2 alpha are equipotent, about 150 times more potent than dl-cloprostenol (P < 0.05) and approximately 280 times more potent than PGE1 in inhibiting [³H]PGF2 alpha binding to corpus luteum cell membranes. However, d-cloprostenol and PGF2 alpha are about 10 times more potent than dl-cloprostenol and approximately 95 times more potent than PGE1 in myometrial cell membranes[2].

In Vivo D-cloprostenol (15 g per head) is the lowest dose that consistently achieves abortion; D-cloprostenol causes mild adverse effects including salivation, defecation and hyperventilation in bitches weighing less than 10 kg. Intra-vesicle administration of a single low dose of d-cloprostenol is a safe and successful technique to induce abortion in the bitch[1].
REFERENCES
