CB1 inverse agonist 1

**Cat. No.:** HY-135280

**CAS No.:** 852315-00-5

**Molecular Formula:** C₂₅H₁₈Cl₃N₃O₃

**Molecular Weight:** 514.79

**Target:** Cannabinoid Receptor

**Pathway:** GPCR/G Protein; Neuronal Signaling

**Storage:** Please store the product under the recommended conditions in the COA.

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### BIOLOGICAL ACTIVITY

**Description**

CB1 inverse agonist 1 is a highly potent, orally active, and specific inverse agonist of CB1 receptor with IC₅₀ of 7.5 nM and 4100 nM for CB1 and CB2 receptors, respectively. Anorexigenic effects[1].

**IC₅₀ & Target**

<table>
<thead>
<tr>
<th>IC₅₀</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5 nM (IC₅₀)</td>
<td>CB1</td>
</tr>
<tr>
<td>4100 nM (IC₅₀)</td>
<td>CB2</td>
</tr>
</tbody>
</table>

**In Vivo**

CB1 inverse agonist 1 (Compound 14; 0.3, 1, or 3 mg/kg) inhibits feeding in a dose-dependent manner[1]. The pharmacokinetic profile of CB1 inverse agonist 1 is evaluated in Sprague-Dawley rats, C57BL/6 mice, beagles, and rhesus macaques with t₁/₂ of >8, >8, >24, and 22 h, respectively[1].

<table>
<thead>
<tr>
<th>Animal Model</th>
<th>Dosage</th>
<th>Administration</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat[1]</td>
<td>0.3, 1, or 3 mg/kg</td>
<td>PO</td>
<td>Inhibited feeding in a dose-dependent manner. 3 mg/kg decreased cumulative food intake from 2 h post-dosing. Decreased overnight body weight gain compared to vehicle treatment at all dosing levels.</td>
</tr>
</tbody>
</table>

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### REFERENCES


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**Caution:** Product has not been fully validated for medical applications. For research use only.

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