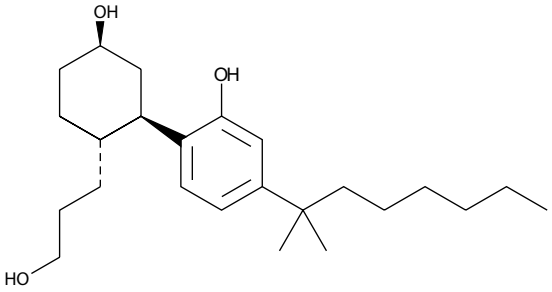
Product Information

(±)-CP 55,940

Item No. 13241

CAS Registry No.: 83003-12-7
Formal Name: *rel*-5-(1,1-dimethylheptyl)-2-[(1R,2R,5R)-5-hydroxy-2-(3-hydroxypropyl)cyclohexyl]-phenol
MF: $C_{24}H_{40}O_3$
FW: 376.6
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that (±)-CP 55,940 be stored as supplied at -20°C. It should be stable for at least two years.

(±)-CP 55,940 is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-CP 55,940 in an organic solvent purged with an inert gas. (±)-CP 55,940 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (±)-CP 55,940 in these solvents is approximately 30 mg/ml.

(±)-CP 55,940 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (±)-CP 55,940 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. (±)-CP 55,940 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

(±)-CP 55,940 was one of the first bicyclic mimetics of Δ^9-THC found to have superior analgesic properties.[1,2] The racemic mixture of CP 55,940 is 20- to 100-fold more effective than Δ^9-THC in altering the reactions to thermal, mechanical, and chemical pain in mice (*e.g.*, 50% maximum possible effect (MPE_{50}) observed in the tail clamp assay at 0.46 and 29.1 mg/kg for (±)-CP 55,940 and Δ^9-THC, respectively).[1] CP 55,940 has also been used to identify and characterize the central cannabinoid (CB_1) receptor in rat brain membranes.[2] The capacity to displace CP 55,940 from CB_1 receptor in rat brain preparations has frequently been used in the characterization of novel cannabimimetics.

References

1. Howlett, A.C., Johnson, M.R., Melvin, L.S., *et al.* Nonclassical cannabinoid analgetics inhibit adenylate cyclase: Development of a cannabinoid receptor model. *Mol. Pharmacol.* **33**, 297-302 (1987).
2. Devane, W.A., Dysarz, F.A., III, Johnson, M.R., *et al.* Determination and characterization of a cannabinoid receptor in rat brain. *Mol. Pharmacol.* **34**, 605-613 (1988).

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