

PRODUCT INFORMATION



(±)-CP 55,940-d₁₁
Item No. 10703

Formal Name: *rel*-5-(1,1-dimethylheptyl-3,3,4,4,5,5,6,6,7,7,7-d₁₁)-2-[(1R,2R,5R)-5-hydroxy-2-(3-hydroxypropyl)cyclohexyl]-phenol

MF: C₂₄H₂₉D₁₁O₃

FW: 387.6

Chemical Purity: ≥98% ((±)-CP 55,940)

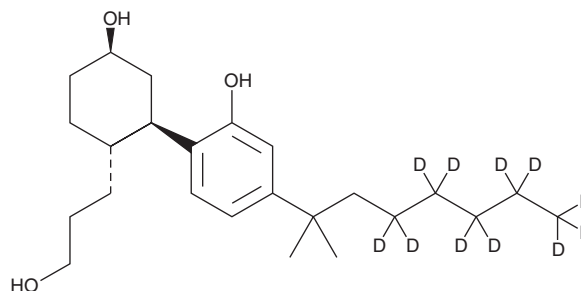
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₁₁); ≤1% d₀

UV/Vis.: λ_{max}: 219, 276 nm

Supplied as: A solution in methanol

Storage: -20°C

Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(±)-CP 55,940-d₁₁ is intended for use as an internal standard for the quantification of (±)-CP 55,940 (Item No. 13241) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

(±)-CP 55,940-d₁₁ is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (±)-CP 55,940-d₁₁ in these solvents is approximately 30 mg/ml.

(±)-CP 55,940-d₁₁ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of (±)-CP 55,940-d₁₁ should be diluted with the aqueous buffer of choice. (±)-CP 55,940-d₁₁ 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.

Description

(±)-CP 55,940 is a potent, non-selective cannabinoid (CB) receptor agonist (K_is = 5 and 1.8 nM for human CB₁ and CB₂, respectively).¹ It stimulates [³⁵S]GTPγS binding to rat cerebellar membranes (EC₅₀s = 0.22-0.96 nM).² *In vivo*, (±)-CP 55,940 induces analgesia in the tail clamp, hot plate, tail flick, flinch jump, and PBQ-induced writhing tests with 50% maximum possible effect (MPE₅₀) values of 0.46, 1.11, 0.55, 0.63, and 0.29 mg/kg, respectively.³ (±)-CP 55,940 also decreases the discrimination index (DI) of female, but not male, rats in the object location task as well as the DI of male, but not female, rats in the novel object recognition task.⁴

References

1. Pertwee, R.G. *Curr. Med. Chem.* **6**(8), 635-664 (1999).
2. Griffin, G., Atkinson, P.J., Showalter, V.M., *et al. J. Pharmacol. Exp. Ther.* **285**(2), 553-560 (1998).
3. Howlett, A.C., Johnson, M.R., Melvin, L.S., *et al. Mol. Pharmacol.* **33**(3), 297-302 (1987).
4. Mateos, B., Borcel, E., Loriga, R., *et al. J. Psychopharmacol.* **25**(12), 1676-1690 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/25/2018

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM