

Product Data Sheet

Product Name: CAY10429-d3

Cat. No.: GC47048

Chemical Properties

Cas. No. N/A

SMILES CC1=C[C@@H](C2=C(CCCCC([2H])([2H])[2H])C=C(O)C=C2O)[C@H](C(C)=C)CC1

Formula C₂₁H₂₇D₃O₂

M.Wt 317.5

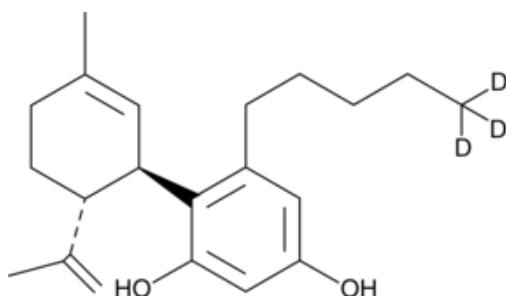
Solubility DMF: 50 mg/ml, DMSO: 60 mg/ml, DMSO:PBS (pH 7.2)(1:3): 0.25 mg/ml, Ethanol: 35 mg/ml

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

CAY10429-d₃ contains three deuterium atoms at the terminal methyl position. It is intended for use as an internal standard for the quantification of CAY10429 by GC- or LC-mass spectrometry. Traditionally, the activity of cannabinoid (CB) agonists was thought to be transduced by a pair of G protein-coupled receptors, CB₁ and CB₂.¹ CAY10429 (abnormal cannabidiol) is a synthetic regioisomer of cannabidiol that fails to elicit either CB₁ or CB₂ responsiveness and is without psychotropic activity. CAY10429 induces endothelium-dependent vasodilation *via* a CB₁/CB₂/nitric oxide-independent mechanism.² At a dose of 20 µg/g in rats, CAY10429 showed hypotensive activity that could not be antagonized by cannabidiol or SR141716A. CAY10429 is therefore believed to

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activate a third type of CB receptor, provisionally called the non-CB₁/CB₂ endocannabinoid receptor. CAY10429 also acts *via* these receptors to regulate the migratory activity of murine BV-2 microglial cells, with an EC₅₀ value of 600 nM.³

1. Felder, C.C., Joyce, K.E., Briley, E.M., et al. Comparison of the pharmacology and signal transduction of the human cannabinoid CB₁ and CB₂ receptors *Mol. Pharmacol.* 48(3)443-450(1995)
2. JÁrai, Z., Wagner, J.A., Varga, K., et al. Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB₁ or CB₂ receptors *Proc. Natl. Acad. Sci. U.S.A.* 96(24)14136-14141(1999)
3. Walter, L., Franklin, A., Witting, A., et al. Nonpsychotropic cannabinoid receptors regulate microglial cell migration *Journal of Neuroscience* 23(4)1398-1405(2003)

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