



Certificate of Analysis

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Product Name: (-)-Cannabidiol Catalog No.: 1570 Batch No.: 10

CAS Number: 13956-29-1

IUPAC Name: 2-[(1R,6R)-3-Methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-1,3-benzenediol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{30}O_2$ Batch Molecular Weight: 314.47

Physical Appearance: Off-white solid

Solubility: ethanol to 75 mM

DMSO to 75 mM

Batch Molecular Structure:

2. ANALYTICAL DATA

Storage:

HPLC: Shows 99.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -130.2$ (Concentration = 1, Solvent = Ethanol)

Store at -20°C



Product Information

Print Date: Aug 15th 2024

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Description:

(-)-Cannabidiol is a non-psychotropic constituent of cannabis that is anticonvulsive, antihyperalgesic and neuroprotective in vivo. GPR55 and weak CB₁ antagonist (IC₅₀ values are 0.445 and 3.35 μM), CB₂ receptor inverse agonist and inhibitor of anandamide uptake (IC₅₀ = 27.5 μM). Also inhibits FABPs and a weak agonist at TRP vanilloid receptors (EC₅₀ = 3.5 μM).

Physical and Chemical Properties:

Batch Molecular Formula: C₂₁H₃₀O₂ Batch Molecular Weight: 314.47 Physical Appearance: Off-white solid

Minimum Purity: ≥99%

Batch Molecular Structure:

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

ethanol to 75 mM DMSO to 75 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Deutsch (2016) A personal retrospective: Elevating Anandamide (AEA) by targeting fatty acid amide hydrolase (FAAH) and the fatty acid binding proteins (FABPs). Front.Pharmacol. **7** 370. PMID: 27790143.

Ryberg et al (2007) The orphan receptor GPR55 is a novel cannabinoid receptor. Br.J.Pharmacol. 152 1092. PMID: 17876302.

Thomas et al (2007) Cannabidiol displays unexpectedly high potency as an antagonist of CB₁ and CB₂ receptor agonists in vitro. Br.J.Pharmacol. **150** 613. PMID: 17245363.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use