

Certificate of Analysis

Product Name: Δ^9 -Tetrahydrocannabinol

Catalog No.: 2741

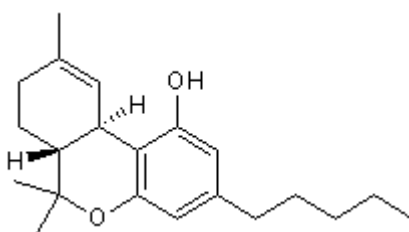
Batch No.: 4

CAS Number: 1972-08-3

IUPAC Name: (6a*R*,10a*R*)-6a,7,8,10a-Tetrahydro-6,6,9-trimethyl-3-pentyl-6*H*-dibenzo[*b,d*]pyran-1-ol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₁ H ₃₀ O ₂
Batch Molecular Weight:	314.46
Physical Appearance:	Colourless oil
Solubility:	ethanol to 50 mM
Storage:	Store at RT
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 98.8% purity
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Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Cannabinoid receptor agonist (K_i values are 5.05 and 3.13 nM for CB₁ and CB₂ receptors respectively; EC_{50} values are 6, 0.4 and 8 nM at CB₁, CB₂ and GPR55 receptors respectively). Major psychoactive constituent of marijuana. Shown to inhibit lung cancer growth and metastasis in an *in vivo* mouse model.

Physical and Chemical Properties:

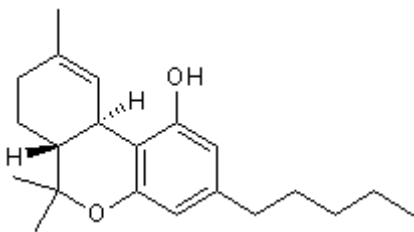
Batch Molecular Formula: C₂₁H₃₀O₂

Batch Molecular Weight: 314.46

Physical Appearance: Colourless oil

Minimum Purity: >95%

Batch Molecular Structure:



References:

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

Pertwee (2008) The diverse CB₁ and CB₂ receptor pharmacology of three plant cannabinoids: Δ^9 -tetrahydrocannabinol, cannabidiol and Δ^9 -tetrahydrocannabivarin. *Br.J.Pharmacol.* **153** 199. PMID: 17828291.

Preet *et al* (2008) Δ^9 -tetrahydrocannabinol inhibits epithelial growth factor-induced lung cancer cell migration *in vitro* as well as its growth and metastasis *in vivo*. *Oncogene* **27** 339. PMID: 17621270.

Storage: Store at RT

Solubility & Usage Info:

ethanol to 50 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. Our standard recommendations are:

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.

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