

Product Name: O-1602

Catalog No.: 2797

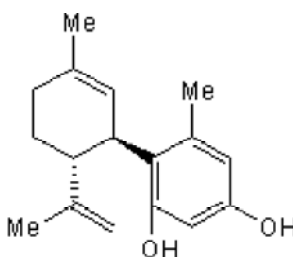
Batch No.: 4

CAS Number: 317321-41-8

IUPAC Name: 5-Methyl-4-[(1*R*,6*R*)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-1,3-benzenediol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₂O₂
Batch Molecular Weight: 258.36
Physical Appearance: Golden oil
Solubility: Soluble in methyl acetate (supplied pre-dissolved -10mg/ml)
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.33 (Ethyl acetate:Petroleum ether [4:1])
HPLC: Shows 97.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -108.2 (Concentration = 0.87, Solvent = Chloroform)

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

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Description:

Analog of cannabidiol that is a potent agonist at the GPR55 cannabinoid receptor (EC₅₀ values are 13, > 30000 and > 30000 nM for GPR55, CB₁ and CB₂ receptors respectively). Induces activation of RhoA, cdc42 and rac1. Increases proliferation of neural stem cells NSCs in vitro and in vivo. Also promotes neurogenesis in vivo.

Physical and Chemical Properties:

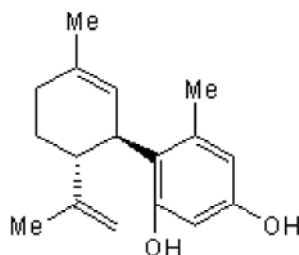
Batch Molecular Formula: C₁₇H₂₂O₂

Batch Molecular Weight: 258.36

Physical Appearance: Golden oil

Minimum Purity: ≥97%

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:

Soluble in methyl acetate (supplied pre-dissolved -10mg/ml)

This compound is supplied pre-dissolved in Methyl acetate (10mg/ml). To change the solvent, evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the chosen solvent (preferably purged with nitrogen beforehand). The solubility of O-1602 is greater than 50mM in both DMSO and Ethanol. These stock solutions can then be diluted further into aqueous solutions, as required. We do not recommend storing aqueous solutions for more than a day.

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.

References:

Hill et al (2018) Activation of GPR55 increases neural stem cell proliferation and promotes early adult hippocampal neurogenesis. Br.J.Pharmacol. **175** 3407. PMID: 29888782.

Johns et al (2007) The novel endocannabinoid receptor GPR55 is activated by atypical cannabinoids but does not mediate their vasodilator effects. Br.J.Pharmacol. **152** 825. PMID: 17704827.

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

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