

Certificate of Analysis

Print Date: Dec 21st 2021

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Product Name: HU 308 Catalog No.: 3088 Batch No.: 11

CAS Number: 256934-39-1

IUPAC Name: (1S,4S,5S)-4-[4-(1,1-Dimethylheptyl)-2,6-dimethoxyphenyl]-6,6-dimethylbicyclo[3.1.1]hept-2-ene-2-methanol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{27}H_{42}O_3.\frac{1}{2}H_2O$

Batch Molecular Weight: 423.63 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.9% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = +112.6$ (Concentration = 2, Solvent = Chloroform)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 76.55 10.23 Found 76.65 10.25

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Product Information

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Description:

HU 308 is a potent and selective CB2 receptor agonist (Ki values are 22.7 nM and > 10 μ M for CB₂ and CB₁ receptors respectively, $EC_{50} = 5.57$ nM). Displays antiallodynic activity in the rat hindpaw incision model of postoperative pain. Also neuroprotective and improves motor performance in a mouse model of Huntington's Disease.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₇H₄₂O_{3.1}/₂H₂O

Batch Molecular Weight: 423.63 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM ethanol to 100 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.

References:

Palazuelos et al (2009) Microglial CB₂ cannabinoid receptors are neuroprotective in Huntington's disease excitotoxicity. Brain 132 3152. PMID: 19805493.

LaBuda et al (2005) Cannabinoid CB2 receptor agonist activity in the hindpaw incision model of postoperative pain. Eur.J.Pharmacol. 527 172. PMID: 16316653.

Hanus et al (1999) HU-308: a specific agonist for CB₂, a peripheral cannabinoid receptor. Proc.Natl.Acad.Sci.USA **96** 14228. PMID: 10588688.

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