

Certificate of Analysis

Print Date: Apr 9th 2020

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Product Name: GW 405833 Catalog No.: 2374 Batch No.: 3

CAS Number: 180002-83-9

IUPAC Name: 1-(2,3-Dichlorobenzoyl)-5-methoxy-2-methyl-3-[2-(4-morpholinyl)ethyl]-1*H*-indole

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{23}H_{24}Cl_2N_2O_3$

Batch Molecular Weight: 447.36

Physical Appearance: White solid

Solubility: DMSO to 50 mM

ethanol to 50 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 61.75 5.41 6.26 Found 61.74 5.43 6.16

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Product Information

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IUPAC Name: 1-(2,3-Dichlorobenzoyl)-5-methoxy-2-methyl-3-[2-(4-morpholinyl)ethyl]-1*H*-indole

Description:

Potent and selective CB_2 receptor partial agonist ($EC_{50} = 0.65$ nM; maximum inhibition = 44.6%). Binds with high affinity to both human and rat CB_2 receptors and displays ~ 1200-fold selectivity over CB_1 (K_i values are 3.92 and 4772 nM for human recombinant CB_2 and CB_1 receptors respectively). Produces potent antihyperalgesic effects in several rodent models of pain.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₃H₂₄Cl₂N₂O₃

Batch Molecular Weight: 447.36 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

DMSO to 50 mM 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.

Other Information:

INFORMATION FOR CUSTOMERS IN THE UK ONLY

This product is a Schedule 1 Home Office controlled substance and customers in the UK are required to hold the relevant licence or be exempt from restrictions in order to purchase and possess this material.

References:

Valenzano et al (2005) Pharmacological and pharmacokinetic characterization of the cannabinoid receptor 2 agonist, GW405833, utilizing rodent models of acute and chronic pain, anxiety, ataxia and catalepsy. Neuropharmacology **48** 658. PMID: 15814101.

Clayton et al (2002) CB₁ and CB₂ cannabinoid receptors are implicated in inflammatory pain. Pain 96 253. PMID: 11972997.