

Certificate of Analysis

Print Date: Apr 9th 2020

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Product Name: TAN 452 Catalog No.: 6729 Batch No.: 1

CAS Number: 892039-23-5

IUPAC Name: Ethyl (4bS,8R,8aS,14bR)-7-(cyclopropylmethyl)-5,6,7,8,8a,9,14,14b-octahydro-1,8a-

dihydroxy-4,8-methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-12-carboxylate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{29}H_{30}N_2O_5.1/4H_2O$

Batch Molecular Weight: 491.06 **Physical Appearance:** Beige solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.68$ (Dichloromethane:Methanol [4:1])

HPLC: Shows 99.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 70.93 6.26 5.7 Found 70.68 6.22 5.79

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Product Information

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dihydroxy-4,8-methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-12-carboxylate

Description:

Potent and selective peripherally acting δ opioid antagonist; K_i values are 0.47, 5.31 and 36.56 nM at hDOR, hKOR, and hMOR, respectively. K_b values are 0.21, 7.18 and 9.43 nM, respectively. Attenuates morphine-induced side effects in vivo. Antianalgesic.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₉H₃₀N₂O₅.1/4H₂O

Batch Molecular Weight: 491.06 Physical Appearance: Beige 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:

Lattanzi et al (2018) In vitro and in vivo pharmacological activities of 14-O-phenylpropyloxymorphone, a potent mixed mu/delta/kappa-opioid receptor agonist with reduced constipation in mice. Front.Pharmacol. 9 10.3389/fphar.2018.0. PMID: 30233377.

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