bio-techne
TOCRIS

Print Date: Oct 16th 2024

Certificate of Analysis

www.tocris.com

Product Name: **Salvinorin B** **Catalog No.: 5611** **Batch No.: 6**

CAS Number: 92545-30-7

IUPAC Name: (2*S*,4a*R*,6a*R*,7*R*,9*S*,10a*S*,10b*R*)-2-(3-Furanyl)dodecahydro-9-hydroxy-6a,10b-dimethyl-4,10-dioxo-2*H*-naphtho[2,1-*c*]pyran-7-carboxylic acid methyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{26}O_7$

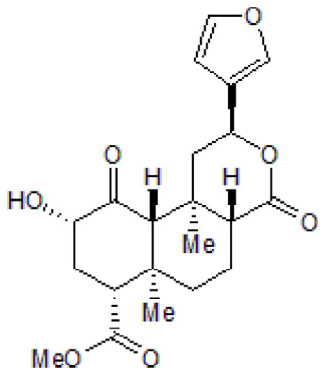
Batch Molecular Weight: 390.43

Physical Appearance: White solid

Solubility: DMSO to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

Mass Spectrum: Consistent with structure

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Description:

Salvinorin B is a potent and selective κ-opioid DREADD (KORD) activator (EC_{50} = 11.8 nM). Selective for KORD over endogenous κ opioid receptor and a range of other related targets. Exhibits no analgesic or ataxic effects in wild type mice. Induces neuronal hyperpolarization, and modifies locomotor activity and feeding behavior in KORD-expressing mouse models. Brain penetrant. Metabolite of salvinorin A.

Physical and Chemical Properties:

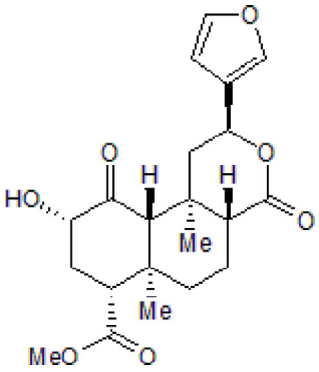
Batch Molecular Formula: $C_{21}H_{26}O_7$

Batch Molecular Weight: 390.43

Physical Appearance: White solid

Minimum Purity: ≥98%

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:

DMSO to 20 mM

This product is unstable in solution. We recommend that solutions of this product are stored at -20°C and used within 24 hours. This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Vardy *et al* (2015) A new DREADD facilitates the multiplexed chemogenetic interrogation of behavior. Neuron ***86*** 936. PMID: 25937170.

Ansonoff *et al* (2006) Antinociceptive and hypothermic effects of Salvinorin A are abolished in a novel strain of κ-opioid receptor-1 knockout mice. J.Pharmacol.Exp.Ther. ***318*** 641. PMID: 16672569.