

# Certificate of Analysis

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**Product Name:** Salvinatorin A

**Catalog No.:** 2134

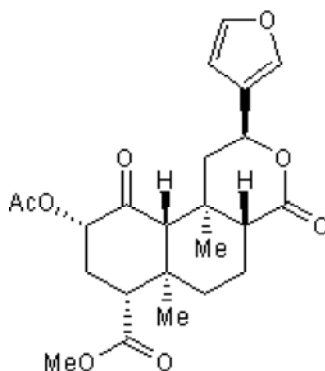
**Batch No.:** 6

**CAS Number:** 83729-01-5

**IUPAC Name:** (2*S*,4*aR*,6*aR*,7*R*,9*S*,10*aS*,10*bR*)-9-(Acetyloxy)-2-(3-furanyl)dodecahydro-6*a*,10*b*-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<sub>23</sub>H<sub>28</sub>O<sub>8</sub>  
**Batch Molecular Weight:** 432.47  
**Physical Appearance:** White solid  
**Solubility:** ethanol to 10 mM  
**Storage:** Desiccate at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 98.5% purity

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

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**Batch No.:** 6

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**Description:**

Potent naturally occurring non-nitrogenous  $\kappa$ -opioid selective agonist that displays high affinity at both native ( $K_i$  = 4.3 nM) and cloned ( $K_i$  = 16 nM)  $\kappa$ -opioid receptors. Also exhibits allosteric modulation of  $\mu$ -opioid receptor binding. Reported to be brain-penetrant and displays psychoactive properties. .

**Physical and Chemical Properties:**

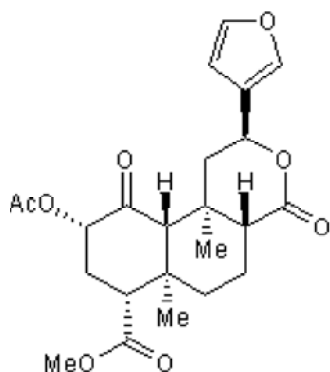
Batch Molecular Formula: C<sub>23</sub>H<sub>28</sub>O<sub>8</sub>

Batch Molecular Weight: 432.47

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

ethanol to 10 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 as a lyophilized solid and may 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. 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:**

**Rothman *et al*** (2007) Salvinorin A: allosteric interactions at the  $\mu$ -opioid receptor. *J.Pharmacol.Exp.Ther.* **320** 801. PMID: 17060492.

**Scheffler and Roth** (2003) Salvinorin A: the 'magic mint' hallucinogen finds a molecular target in the kappa opioid receptor. *TiPS.* **24** 107.

**Roth *et al*** (2002) Salvinorin A: a potent naturally occurring nonnitrogenous  $\kappa$  opioid selective agonist. *Proc.Natl.Acad.Sci.USA* **99** 11934.

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