



# CERTIFICATE OF ANALYSIS

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## 1. Identification

**CAS Number:**

109741-24-4

**Catalogue Number:**

TRC-A729255

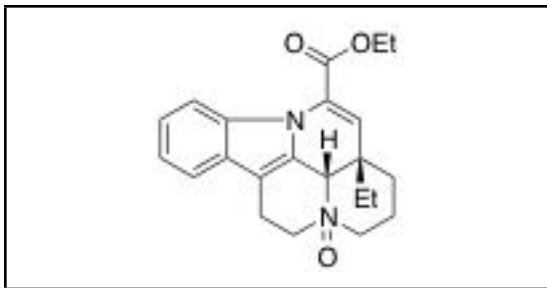
**Product:**

Apovincaminic Acid Ethyl Ester N-Oxide

**Synonyms:**

Ethyl Apovincamate N-Oxide; 1H-Indolo[3,2,1-de]pyrido[3,2,1-ij][1,5]naphthyridine, eburnamenine-14-carboxylic Acid Deriv.; (3 $\alpha$ ,16 $\alpha$ )-Eburnamenine-14-carboxylic Acid Ethyl Ester 4-Oxide;

**Structure:**



**Molecular Formula:**

C<sub>22</sub>H<sub>26</sub>N<sub>2</sub>O<sub>3</sub>

**Molecular Weight:**

366.45

**Source of Product:**

Synthetic

## 2. Analytical Information

**Lot Number:**

7-WEN-45-2

**Atmosphere:**

Inert Gas

**Melting Point:**

>83°C (dec.)

**Solubility**

Benzene (Slightly), Chloroform (Slightly), DMSO (Slightly), Methanol (Slightly)

**Appearance of Product:**

White to Off-White Solid

**Stability**

Hygroscopic

**Method for Determining Identity:**

<sup>1</sup>H NMR (C<sub>6</sub>D<sub>6</sub>, DMSO-d<sub>6</sub>) and MS

**Long Term Storage Condition:**

-20°C, Hygroscopic

**Purity:**

97%

**Shipping Condition**

This Product Is Stable To Be Shipped At Room Temperature

**Additional Information:**

TLC Conditions: SiO<sub>2</sub>; Dichloromethane : Methanol = 9 : 1; Visualized with UV and KMnO<sub>4</sub>; Single Spot, R<sub>f</sub> = 0.40.

<sup>1</sup>H NMR and MS conform to structure.

Elemental Analysis: (Found) %C: 71.17, %H: 7.60, %N: 6.88; (Calculated) %C: 72.11, %H: 7.15, %N: 7.64

Specific Rotation: +116.7° (c = 0.1, Chloroform)

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed.

The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

Philip Chan, Head of Quality Assurance

**QC Test Date**

October 18, 2017

**Retest Date**

October 16, 2021