TOCRIS bioscience

Print Date: Nov 12th 2014

Certificate of Analysis

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Product Name: **Dihydro-β-erythroidine hydrobromide** **Catalog No.: 2349** **Batch No.: 11**

CAS Number: 29734-68-7

IUPAC Name: (2*S*,13b*S*)-2-Methoxy-2,3,5,6,8,9,10,13-octahydro-1*H*,12*H*-benzo[*i*]pyrano[3,4-*g*]indolizin-12-one hydrobromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{21}NO_3.HBr$

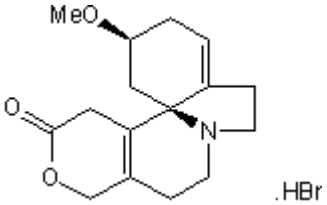
Batch Molecular Weight: 356.26

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 25 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.45 (Chloroform:Methanol [9:1])

HPLC: Shows >98.1% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D$ = +106.8 (Concentration = 1, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.94	6.22	3.93
Found	53.96	6.29	3.91

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

Tocris Bioscience is an R&D Systems company

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R&D SYSTEMS

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Description:

Competitive nicotinic acetylcholine receptor antagonist with moderate selectivity for the neuronal α4 receptor subunit (IC_{50} values are 0.19 and 0.37 μM for α4β4 and α4β2 receptors respectively). Antagonizes behavioral effects of nicotine in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{16}H_{21}NO_3$.HBr

Batch Molecular Weight: 356.26

Physical Appearance: White solid

Minimum Purity: >98%

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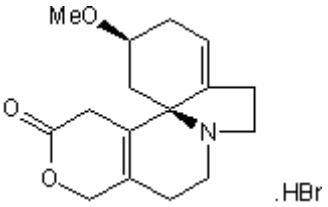

Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM
DMSO to 25 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:

Williams and Robinson (1984) Binding of the nicotinic cholinergic antagonist, dihydro-#946;-erythroidine, to rat brain tissue. J.Neurosci. ***4*** 2906. PMID: 6502210.

Damaj *et al* (1995) In vivo pharmacological effects of dihydro-#946;-erythroidine, a nicotinic antagonist, in mice. Psychopharmacology ***117*** 67. PMID: 7724704.

Harvey *et al* (1996) Multiple determinants of dihydro-#946;-erythroidine sensitivity on rat neuronal nicotinic receptor #945; subunits. J.Neurochem. ***67*** 1953. PMID: 8863500.