

**Product Name:** Dihydro-β-erythroidine hydrobromide

**Catalog No.:** 2349

**Batch No.:** 13

CAS Number: 29734-68-7

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

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>16</sub>H<sub>21</sub>NO<sub>3</sub>.HBr

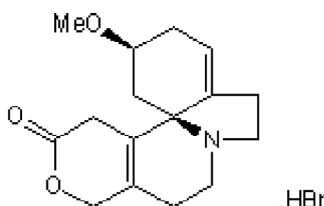
**Batch Molecular Weight:** 356.26

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 25 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.0% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** [α]<sub>D</sub> = +103.3 (Concentration = 1, Solvent = Water)

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	53.94	6.22	3.93
Found	53.85	6.14	3.88

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

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**Description:**

Dihydro-β-erythroidine hydrobromide is a member of the Erythrina alkaloids, it is a competitive nicotinic acetylcholine receptor antagonist with moderate selectivity for the neuronal α4 receptor subunit (IC<sub>50</sub> values are 0.19 and 0.37 μM for α4β4 and α4β2 receptors, respectively). Antagonizes behavioral effects of nicotine in vivo. Dihydro-β-erythroidine blocks excitation of striatal GABAergic neurons, which completely suppress polysynaptic inhibition between striatal cholinergic interneurons. Dihydro-β-erythroidine hydrobromide has antidepressive-like effects in mice (forced swim and mouse suspensi... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

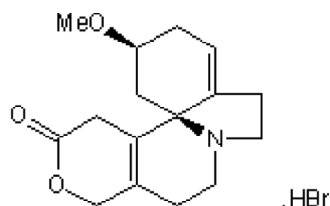
Batch Molecular Formula: C<sub>16</sub>H<sub>21</sub>NO<sub>3</sub>.HBr

Batch Molecular Weight: 356.26

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**References:**

**Dorst et al** (2020) Polysynaptic inhibition between striatal cholinergic interneurons shapes their network activity patterns in a dopamine-dependent manner. *Nat. Commun* **11** 5133. PMID: 33037215.

**Andreasen et al** (2009) Antidepressant-like effects of nicotinic acetylcholine receptor antagonists, but not agonists, in the mouse forced swim and mouse tail suspension tests. *J. Psychopharmacol.* **23** 797. PMID: 18583432.

**Sullivan et al** (2008) Recurrent Inhibitory Network among Striatal Cholinergic Interneurons. *J. Neurosci.* **28** 8682. PMID: 18753369.

**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. \*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.

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