

**Product Name:** Dihydroergotoxine mesylate

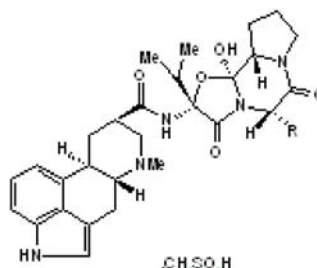
**Catalog No.:** 0505

**Batch No.:** 1

CAS Number: 8067-24-1

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical Appearance:** White solid  
**Solubility:** Soluble in ethanol  
**Storage:** Store at RT  
**Batch Molecular Structure:**



R=CH(CH<sub>3</sub>), CH<sub>2</sub>Ph, CH<sub>2</sub>CH(CH<sub>3</sub>), CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub> (3:2:1 approximately)

**2. ANALYTICAL DATA**

**HPLC:** Shows 99.2% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

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

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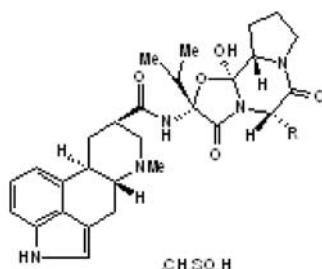
**Description:**

A complex of closely related alkaloid salts. Binds with high affinity to the GABA<sub>A</sub> receptor Cl<sup>-</sup> channel, producing an allosteric interaction with the benzodiazepine site. Also interacts with central dopaminergic, serotonergic and adrenergic (α<sub>1</sub>) receptors. Displays antiproliferative activity in vitro (IC<sub>50</sub> = 18 - 38 μM in prostate cancer cells) and exhibits cognition-enhancing, anticonvulsant and sedative activity in vivo. Orally active.

**Physical and Chemical Properties:**

Physical Appearance: White solid

**Batch Molecular Structure:**



R=CH(CH<sub>3</sub>), CH<sub>2</sub>Ph, CH<sub>2</sub>CH(CH<sub>3</sub>), CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub> (3:2:1 approximately)

**References:**

- Abdul et al** (2008) Expression of gamma-aminobutyric acid receptor (subtype A) in prostate cancer Acta Oncol. **47** 1546. PMID: 18607852.
- Tvrdeic and Perici** (2003) Effects of ergot alkaloids on 3H-flunitrazepam binding to mouse brain GABA<sub>A</sub> receptors. Coll.Antropol. **27** S175. PMID: 12955907.
- Tvrdeic and Perici** (1992) Dihydroergotoxine modulation of the GABA<sub>A</sub> receptor-associated Cl<sup>-</sup> ionophore in mouse brain. Eur.J. Pharmacol. **221** 139. PMID: 1333969.
- Tvrdeic and Perici** (1991) Dihydrogenated ergot compounds bind with high affinity to GABA<sub>A</sub> receptor-associated Cl<sup>-</sup> ionophore. Eur.J.Pharmacol. **202** 109. PMID: 1664802.

**Storage:** Store at RT

**Solubility & Usage Info:**

Soluble in ethanol

This product has an approximate molecular weight of 1190.70

**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.

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