

## Certificate of Analysis

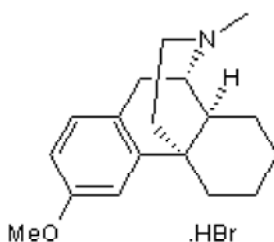
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**Product Name:** Dextromethorphan hydrobromide  
**CAS Number:** 125-69-9  
**IUPAC Name:** (9 $\alpha$ ,13 $\alpha$ ,14 $\alpha$ )-3-Methoxy-17-methylmorphinan hydrobromide

**Catalog No.:** 3071      **Batch No.:** 1

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>25</sub>NO.HBr.H<sub>2</sub>O  
**Batch Molecular Weight:** 370.33  
**Physical Appearance:** White crystalline solid  
**Solubility:** water to 40 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows >99.7% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [ $\alpha$ ]<sub>D</sub> = +29.4 (Concentration = 1.5, Solvent = Water)

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

**bio-techne.com**  
 info@bio-techne.com  
 techsupport@bio-techne.com

**North America**  
 Tel: (800) 343 7475

**China**  
 info.cn@bio-techne.com  
 Tel: +86 (21) 52380373

**Europe Middle East Africa**  
 Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
 Tel:+1 612 379 2956

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**Description:**

Non-competitive, low affinity NMDA receptor antagonist.  
Antitussive, anticonvulsive and neuroprotective agent.

**Physical and Chemical Properties:**

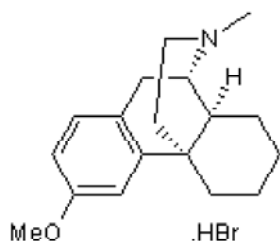
Batch Molecular Formula: C<sub>18</sub>H<sub>25</sub>NO.HBr.H<sub>2</sub>O

Batch Molecular Weight: 370.33

Physical Appearance: White crystalline solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 40 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:**

**Keller et al** (2008) Dextromethorphan is protective against sensitized *N*-MthD.-aspartate receptor-mediated excitotoxic brain damage in the developing mouse brain. *Eur.J.Neurosci.* **27** 874. PMID: 18279363.

**Choi et al** (1987) Dextrorphan and levorp. selectively block *N*-MthD.-aspartate receptor-mediated neurotoxicity on cortical neurons. *J.Pharmacol.Exp.Ther.* **242** 713. PMID: 3039122.

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