

## Certificate of Analysis

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**Product Name:** Muscimol

**Catalog No.:** 0289

**Batch No.:** 11

CAS Number: 2763-96-4

EC Number: 220-430-4

IUPAC Name: 5-Aminomethyl-3-hydroxyisoxazole

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>4</sub>H<sub>6</sub>N<sub>2</sub>O<sub>2</sub>·½H<sub>2</sub>O

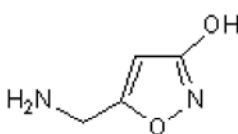
**Batch Molecular Weight:** 123.11

**Physical Appearance:** Off-white solid

**Solubility:** water to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	39.02	5.73	22.75
Found	39.66	5.34	23.16

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

Tel: +1 612 379 2956

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**Batch No.:** 11

CAS Number: 2763-96-4

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IUPAC Name: 5-Aminomethyl-3-hydroxyisoxazole

**Description:**

Muscimol is a potent GABA<sub>A</sub> receptor agonist and partial GABA<sub>A-p</sub> receptor agonist. Inhibits memory retention and attenuates airway constriction *in vivo*.

**Physical and Chemical Properties:**

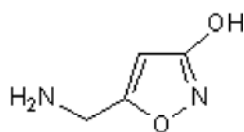
Batch Molecular Formula: C<sub>4</sub>H<sub>6</sub>N<sub>2</sub>O<sub>2</sub>·½H<sub>2</sub>O

Batch Molecular Weight: 123.11

Physical Appearance: Off-white solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 100 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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:**

**Gleason *et al*** (2009) The GABA<sub>A</sub> agonist muscimol attenuates induced airway constriction in guinea pigs *in vivo*. *J.Appl.Physiol.* **106** 1257. PMID: 19213928.

**Jafari-Sabet and Jannat-Dastjerdi** (2009) Muscimol state-dependent memory: involvement of dorsal hippocampal μ-opioid receptors. *Behav.Brain Res.* **202** 5. PMID: 19447274.

**Johnstone** (1996) GABA<sub>C</sub> receptors: relatively simple transmitter-gated ion channels? *TiPS* **17** 319. PMID: 8885697.

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