

## Certificate of Analysis

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**Product Name:** Agmatine sulfate

**Catalog No.:** 0842

**Batch No.:** 5

CAS Number: 2482-00-0

IUPAC Name: (4-Aminobutyl)guanidine sulfate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_5H_{14}N_4 \cdot H_2SO_4$

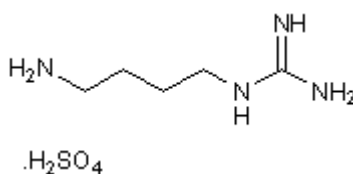
**Batch Molecular Weight:** 228.27

**Physical Appearance:** 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

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	26.31	7.06	24.54
Found	26.47	6.87	24.38

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**Description:**

Arginine metabolite that is synthesized within bovine brain and exhibits clonidine-displacing substance (CDS) activity. Putative endogenous ligand for the imidazoline binding site.

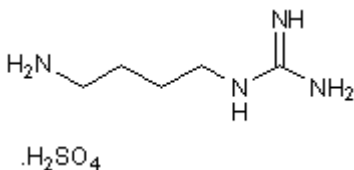
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>5</sub>H<sub>14</sub>N<sub>4</sub>.H<sub>2</sub>SO<sub>4</sub>

Batch Molecular Weight: 228.27

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 100 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:**

Merck Index **12** 186.

Li *et al* (1994) Agmatine: an endogenous clonidine-displacing substance in the brain. **263** 966. PMID: 7906055.

Piletz *et al* (1995) Comparison of the properties of agmatine and endogenous clonidine-displacing substance at imidazoline and *alpha*-2-adrenergic receptors. J.Pharmacol.Exp.Ther. **272** 581. PMID: 7853171.

Reis and Regunathan (2000) Is agmatine a novel neurotransmitter in brain? TiPs **21** 187. PMID: 10785653.

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