

Certificate of Analysis

Product Name: L-BMAA hydrochloride

Catalog No.: 2538

Batch No.: 1

CAS Number: 16012-55-8

IUPAC Name: 3-(Methylamino)-L-alanine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄H₁₀N₂O₂.HCl

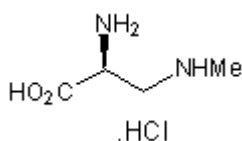
Batch Molecular Weight: 154.6

Physical Appearance: White solid

Solubility: water to 60 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: At 187°C(dec)

¹H NMR: Consistent with structure

¹³C NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = +35.5 (Concentration = 1.15, Solvent = 5N HCl)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	31.08	7.17	18.12
Found	31.1	7.02	18.16

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

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Description:

Neurotoxic glutamate agonist originally isolated from *Cycas circinalis*. Implicated in the pathogenesis of amyotrophic lateral sclerosis-Parkinsonism-dementia complex of Guam (Guam ALS-PD).

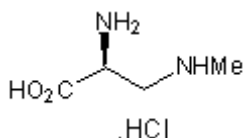
Physical and Chemical Properties:

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Storage: Store at -20°C

Solubility & Usage Info:

water to 60 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:

Vega et al (1968) The preparation of L- and D-α-amino-β<-methylaminopropionic acids and the identification of the compound isolated from *Cycas circinalis* as the L-isomer. *Phytochemistry* **7** 1885.

Weiss et al (1989) Neurotoxicity of β-N-methylamino-L-alanine (BMAA) and β-N-oxalylamino-L-alanine (BOAA) on cultured cortical neurons. *Brain Res.* **497** 64. PMID: 2551452.

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