

Certificate of Analysis

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Product Name: MSOP

Catalog No.: 0803

Batch No.: 8

CAS Number: 66515-29-5

IUPAC Name: (RS)- α -Methylserine-O-phosphate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄H₁₀NO₆P·1 $\frac{3}{4}$ H₂O

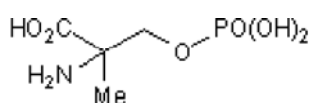
Batch Molecular Weight: 230.62

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon Hydrogen Nitrogen | | |
|-------------|--------------------------|------|------|
| Theoretical | 20.83 | 5.9 | 6.07 |
| Found | 20.47 | 6.14 | 5.91 |

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

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IUPAC Name: (RS)- α -Methylserine-O-phosphate

Description:

Selective group III metabotropic glutamate receptor antagonist. Displays an apparent K_D of 51 μ M for the L-AP4-sensitive presynaptic mGluR on primary afferent terminals in spinal cord compared to > 700 μ M for the (1S,3S)-ACPD-sensitive presynaptic mGlu in the same system. Has no activity on postsynaptic mGlu receptors or on ionotropic glutamate receptors on neonatal rat motoneurons.

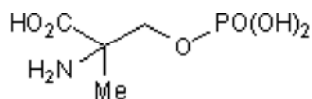
Physical and Chemical Properties:

Batch Molecular Formula: C₄H₁₀NO₆P.1 $\frac{3}{4}$ H₂O

Batch Molecular Weight: 230.62

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:

Jane et al (1996) Phosphono substituted amino acids as selective metabotropic glutamate receptor antagonists. Phosphorous, Sulphur and Silicon **109-110** 313.

Thomas et al (1996) α -Methyl derivatives of serine-O-phosphate as novel, selective competitive metabotropic glutamate receptor antagonists. Neuropharmacology **35** 637. PMID: 8887973.

Thomas et al (1995) Serine-O-phosphate derivatives as novel, potent and selective metabotropic glutamate receptor (mGluR) antagonists. Soc.Neurosci.Abst. **21** P616.

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