TOCRIS
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Print Date: Jan 13th 2016

Certificate of Analysis

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Product Name: **L-AP6** **Catalog No.: 0341** **Batch No.: 2**

CAS Number: 78944-89-5

IUPAC Name: L-(+)-2-Amino-6-phosphonohexanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_6H_{14}NO_5P.H_2O$

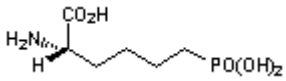
Batch Molecular Weight: 229.16

Physical Appearance: White crystalline solid

Solubility: 1eq. NaOH to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.08 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])

Melting Point: Between 242 - 243°C

^{1}H NMR: Consistent with structure

Optical Rotation: $[\alpha]_D$ = +19.5 (Concentration = 0.26, Solvent = 6N HCl)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	31.45	7.04	6.1
Found	31.17	7.68	6.2

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Description:

Selective agonist for 'quis'-sensitized site.

Physical and Chemical Properties:

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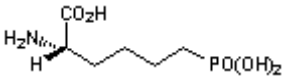

Storage: Store at RT

Solubility & Usage Info:

1eq. NaOH 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:

Schulte *et al* (1994) Utilization of the resolved L-isomer of 2-amino-6-phosphonohexanoic acid (L-AP6) as a selective agonist for a quisqualate-sensitized site in hippocampal CA1 pyramidal neurons. Brain Res. ***649*** 203. PMID: 7953634.

Venkatraman *et al* (1994) Synthesis of oxadiazolidinedione derivatives as quisqualic acid analogues and their evaluation at a quisqualate-sensitized site in the rat hippocampus. J.Med.Chem. ***37*** 3939. PMID: 7966155.

Johansen *et al* (1995) Type 4a metabotropic glutamate receptor: identification of new potent agonists and differentiation from the L-(+)-2-amino-4-phosphonobutanoic acid-sensitive receptor in the lateral perforant pathway in rats. Mol.Pharmacol. ***48*** 140. PMID: 7623768.