Print Date: May 26th 2018

Certificate of Analysis

www.tocris.com

Product Name: **PMPA (NMDA antagonist)** **Catalog No.: 2273** **Batch No.: 1**

CAS Number: 113919-36-1

IUPAC Name: 4-(Phosphonomethyl)-2-piperazinecarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_6H_{13}N_2O_5P.1½H_2O$

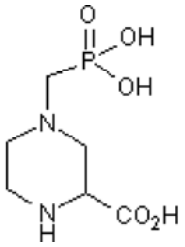
Batch Molecular Weight: 251.17

Physical Appearance: Pale yellow solid

Solubility: water to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.62 (Pyridine:Acetic acid:Water:Butanol [3:8:11:14])

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	28.69	6.42	11.15
Found	29.01	6.21	11

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

Product Information

Product Name: **PMPA (NMDA antagonist)** **Catalog No.: 2273** **Batch No.: 1**

CAS Number: 113919-36-1

IUPAC Name: 4-(Phosphonomethyl)-2-piperazinecarboxylic acid

Description:

Competitive NMDA receptor antagonist. Displays K_i values of 0.84, 2.74, 3.53 and 4.16 µM at GluN2A, GluN2B, GluN2C and GluN2D subunit-containing receptors respectively. Selective over AMPA receptors. Please refer to IUPHAR Guide to Pharmacology for the most recent naming conventions.

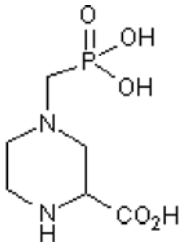
Physical and Chemical Properties:

Batch Molecular Formula: $C_6H_{13}N_2O_5P.1½H_2O$

Batch Molecular Weight: 251.17

Physical Appearance: Pale yellow solid

Batch Molecular Structure:



Storage: Store at +4°C

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:

Feng *et al* (2005) The effect of competitive antagonist chain length on NMDA receptor subunit selectivity. Neuropharmacology ***48*** 354. PMID: 15721167.

Harris and Davies (1992) Cortically evoked excitatory synaptic transmission in the cat red nucleus is antagonised by D-AP5 but not by D-AP7. Brain Res. ***594*** 176. PMID: 1361408.

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