

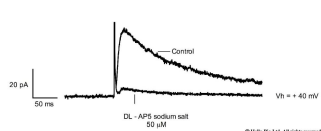
DATASHEET

DL-AP5 sodium salt

Product overview

Name	DL-AP5 sodium salt
Cat No	HB0252
Alternative names	DL-APV sodium salt
Biological action	Antagonist
Purity	>98%
Description	Competitive NMDA receptor antagonist. Sodium salt.

Images



Biological Data

Biological description

DL-AP5 sodium salt is a water soluble, competitive NMDA receptor antagonist and is the sodium salt of **DL-AP5**. DL-AP5 sodium salt binds at the glutamate site and impairs learning and fear conditioning. DL-AP5 sodium salt is a water soluble NMDA receptor antagonist. It is typically used at a concentration of 50–100 μM . DL-AP5 sodium salt from Hello Bio reduces evoked NMDAR current with full receptor antagonism at 50 μM (see Fig 1 above), consistent with the literature for this compound.

Application notes

#Protocol 1: Evoked NMDAR currents at +40 mV

- NMDAR currents were recorded via whole cell voltage clamp recordings of CA1 pyramidal neurons from rat hippocampal brain slice.
- NMDAR currents were evoked via a stimulating electrode placed in the CA3 region to stimulate the Schaffer collateral pathway.
- Each NMDAR current was evoked via a single square (150 μs) pulse every 10 sec at a stimulus intensity that gave a reliable NMDAR current.
- Neurons were constantly held at +40 mV and NMDAR currents recorded in response to continual bath applications of NMDAR antagonists.
- All NMDAR recordings were made in the presence of GABAA-R and AMPAR antagonists.

Solubility & Handling

Storage instructions

Room temperature (desiccate)

Solubility overview
Handling**Important**

Soluble in water (100mM)

Hydroscopic solid, contact with air may cause material to become sticky. Product performance should not be affected but we recommend storing the material in a sealed jar.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

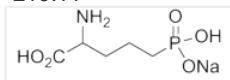
Chemical Data

Chemical name

DL-2-Amino-5-phosphonopentanoic acid sodium salt

Molecular Weight

219.11

Chemical structure**Molecular Formula**C₅H₁₁NNaO₅P**CAS Number**

1303993-72-7

PubChem identifier

52974251

SMILESC(CC(C(=O)O)N)CP(=O)(O)[O-].[Na+]**Source**

Synthetic

InChi

InChI=1S/C5H12NO5P.Na/c6-4(5(7)8)2-1-3-12(9,10)11;/h4H,1-3,6H2,(H,7,8)(H2,9,10,11);/q;+1/p-1

InChiKey

KWRCYAPNGUCHOE-UHFFFAOYSA-M

AppearanceWhite solid

References

Infusion of the NMDA receptor antagonist, DL-APV, into the basolateral amygdala disrupts learning to fear a novel and a familiar context as well as relearning to fear an extinguished context.

Laurent V *et al* (2009) Learn Mem 16(1)**PubMedID** [19141468](#)

The basolateral amygdala is necessary for learning but not relearning extinction of context conditioned fear.

Laurent V *et al* (2008) Learn Mem 15(5)**PubMedID** [18463174](#)

Comparative analysis of different competitive antagonists interaction with NR2A and NR2B subunits of NMDA ionotropic glutamate receptor.

Blaise MC *et al* (2005) J Mol Model 11(6)**PubMedID** [15928921](#)
