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# **DATASHEET**

DL-AP4

#### **Product overview**

 Name
 DL-AP4

 Cat No
 HB0249

Alternative names 2-amino-4-phosphonobutyrate; 2APB

**Biological action**Purity
Antagonist >98%

**Customer comments** Great Price! We are using this (DL-AP4) to block transmission through the ON-pathway in retinal

bipolar cells; it seems to work well, and the price is great! Verified customer, Washington State

University

**Description** Broad spectrum glutamate antagonist

### **Images**



## **Biological Data**

**Biological description** Broad spectrum glutamate antagonist. Produces depolarizing responses in the cerebral cortex for a

short time period after quisqualate application.

## **Solubility & Handling**

Solubility overview Soluble in water (33mM)
Storage instructions Room temperature

Storage of solutions Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if

storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

**Shipping Conditions** Stable for ambient temperature shipping. Follow storage instructions on receipt.

#### **Chemical Data**

Chemical name DL-2-Amino-4-phosphonobutyric acid Molecular Weight 183.1

Chemical structure NH<sub>2</sub>

HO<sub>2</sub>C PO(OH)<sub>2</sub>

Molecular Formula C<sub>4</sub>H<sub>10</sub>NO<sub>5</sub>P

CAS Number 6323-99-5 PubChem identifier 2207

**SMILES** C(CP(=O)(O)O)C(C(=O)O)N

Source Synthetic

InChi InChi=1S/C4H10NO5P/c5-3(4(6)7)1-2-11(8,9)10/h3H,1-2,5H2,(H,6,7)(H2,8,9,10)

InChiKey DDOQBQRIEWHWBT-UHFFFAOYSA-N

MDL number MFCD00013999 Appearance White solid

#### References

Antagonism of excitatory amino acid-induced responses and of synaptic excitation in the isolated spinal cord of the frog.

Evans RH *et al* (1979) Br J Pharmacol 67(4) **PubMedID** 316343

The effects of a series of omega-phosphonic alpha-carboxylic amino acids on electrically evoked and excitant amino acid-induced responses in isolated spinal cord preparations.

Evans RH *et al* (1982) Br J Pharmacol 75(1) **PubMedID** 7042024

Anion transport blockers inhibit DL-2-amino-4-phosphonobutyrate responses induced by quisqualate in the rat cerebral cortex.

Turner JP (1993) Br J Pharmacol 109(2) **PubMedID** 7689393