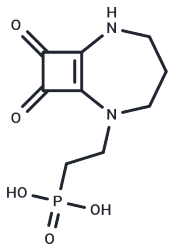
# Data Sheet (Cat.No.T16473)

TargetMol

## Perzinfotel

### Chemical Properties



CAS No. : 144912-63-0

Formula: C9H13N2O5P

Molecular Weight: 260.18

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Perzinfotel (EAA-090) is a potent, selective NMDA receptor antagonist (IC50 = 34 nM). It exhibits neuroprotective and analgesic activities, used for stroke and neuropathic pain research. |
| Targets(IC50) | NMDAR |
| In vitro | Perzinfotel dose-dependently blocks NMDA-induced currents (IC50 = 0.48 uM) and protects neurons from glutamate toxicity [1][2]. |
| In vivo | Perzinfotel alleviates chemically induced thermal hypersensitivity and provides analgesia/neuroprotection via selective NMDA binding [1]. |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 16 mg/mL (61.5 mM),Sonication is recommmended.<br>H2O: 4.7 mg/mL (18.06 mM),Sonication is recommmended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.8435 mL | 19.2175 mL | 38.4349 mL |
| 5 mM | 0.7687 mL | 3.8435 mL | 7.687 mL |
| 10 mM | 0.3843 mL | 1.9217 mL | 3.8435 mL |
| 50 mM | 0.0769 mL | 0.3843 mL | 0.7687 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Brandt MR, et al. Effects of the N-methyl-D-aspartate receptor antagonist perzinfotel [EAA-090; [2-(8,9-dioxo-2,6-diazabicyclo[5.2.0]non-1(7)-en-2-yl)-ethyl]phosphonic acid] on chemically induced thermal hypersensitivity. J Pharmacol Exp Ther. 2005 Jun;313(3):1379-86.

Kinney WA, et al. Design and synthesis of [2-(8,9-dioxo-2,6-diazabicyclo[5.2.0]non-1(7)-en-2-yl)-ethyl]phosphonic acid(EAA-090), a potent N-methyl-D-aspartate antagonist, via the use of 3-cyclobutene-1,2-dione as an achiral alpha-amino acid bioisostere. J Med Chem. 1998 Jan 15;41(2):236-46.

Strnad P, Siegel M, Toivola DM, Choi K, Kosek JC, Khosla C, Omary MB. Pharmacologic transglutaminase inhibition attenuates drug-primed liver hypertrophy but not Mallory body formation. FEBS Lett. 2006 Apr 17;580(9):2351--2357.



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