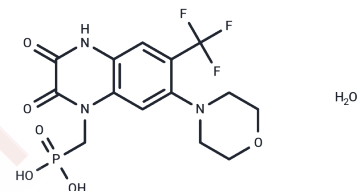


## Fanapanel hydrate

## Chemical Properties

CAS No. : 1255517-78-2  
 Formula: C<sub>14</sub>H<sub>17</sub>F<sub>3</sub>N<sub>3</sub>O<sub>7</sub>P  
 Molecular Weight: 427.27  
 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	Fanapanel hydrate is a highly selective antagonist of AMPA/kainate with little activity against NMDA (K <sub>i</sub> of 3.2 nM, 100 nM, and 8.5 μM against quisqualate, kainate, and NMDA, respectively).
Targets(IC <sub>50</sub> )	Others, iGluR
In vivo	In mice, ZK200775 elevated the threshold for AMPA- and kainate-induced clonic seizures with a THRD <sub>50</sub> (threshold dose) of 2.9 (1.7-4.6) and 1.6 (1.3-2.0) mg/kg i.v., respectively, while the threshold for NMDA-induced seizures increased only at a THRD <sub>50</sub> of 24.1 (21.9-26.5) mg/kg i.v., which affected motor coordination in the rotating rod with an ED <sub>50</sub> of 14.6 (12.1-17.6) mg/kg. ZK200775 at doses of 10 and 30 mg/kg (intravenously) reduced muscle tone in hereditary spastic rats [1]. ZK200775 at 3.0 mg/kg, but not at 1.5 or 6.0 mg/kg, significantly reduced nicotine-induced (0.6 mg/kg) DA release in NACC and nicotine-stimulated LMA. ZK200775 (1.5, 3.0, 6.0 mg/kg) alone influenced neither DA release nor LMA. ZK200775 showed 34-fold selectivity for AMPA receptors compared to NMDA receptors and no affinity to nicotine receptors [2].

## Solubility Information

Solubility	DMSO: 5 mg/mL (11.7 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.3404 mL	11.7022 mL	23.4044 mL
5 mM	0.4681 mL	2.3404 mL	4.6809 mL
10 mM	0.234 mL	1.1702 mL	2.3404 mL
50 mM	0.0468 mL	0.234 mL	0.4681 mL

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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

Turski L, et al. ZK200775: a phosphonate quinoxalinedione AMPA antagonist for neuroprotection in stroke and trauma. Proc Natl Acad Sci U S A. 1998 Sep 1;95(18):10960-5.

Kosowski AR, et al. Nicotine-induced dopamine release in the nucleus accumbens is inhibited by the novel AMPA antagonist ZK200775 and the NMDA antagonist CGP39551. Psychopharmacology (Berl). 2004 Aug;175(1):114-23.

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