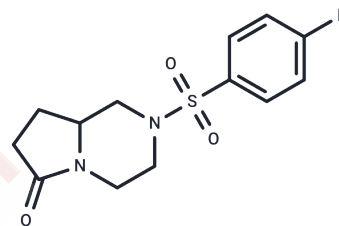


## Unifiram

## Chemical Properties

CAS No. :	272786-64-8
Formula:	C13H15FN2O3S
Molecular Weight:	298.33
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	Unifiram is a cognition-enhancer. Unifiram induces a long-lasting increase in the amplitude of field excitatory postsynaptic potentials (fEPSPs) in the rat hippocampal CA1 region (EC50= 27 nM) and increases acetylcholine (ACh) release in the rat cerebral cortex.
Targets(IC50)	Others,iGluR
In vivo	Unifiram (0.1 mg kg <sup>-1</sup> i.p.) was able to prevent amnesia induced by scopolamine (0.8 mg kg <sup>-1</sup> i.p.) in the rat Morris watermaze test. In the rat social learning test, Unifiram (0.1 mg kg <sup>-1</sup> i.p.) injected in adults rats reduced the duration of active exploration of the familiar partner in the second session of the test. Unifiram, similarly to piracetam, reduced the duration of hypnosis induced by pentobarbital. At the highest effective doses, the investigated compound did not impair motor coordination (rota rod test), nor modified spontaneous (Animex)[2].

## Solubility Information

Solubility	Ethanol: 1 mg/mL (3.35 mM),Sonication is recommended. DMF: 30 mg/mL (100.56 mM),Sonication is recommended. DMSO: 30 mg/mL (100.56 mM),Sonication is recommended. DMSO:PBS (pH 7.2) (1:4): 0.2 mg/mL (0.67 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.7 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.352 mL	16.760 mL	33.5199 mL
5 mM	0.6704 mL	3.352 mL	6.704 mL
10 mM	0.3352 mL	1.676 mL	3.352 mL
50 mM	0.067 mL	0.3352 mL	0.6704 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

Romanelli MN, et al. Pharmacological characterization of DM232 (unifiram) and DM235 (sunifiram), new potent cognition enhancers. *CNS Drug Rev.* 2006 Spring;12(1):39-52.

Ghelardini C, et al. The novel nootropic compound DM232 (unifiram) ameliorates memory impairment in mice and rats *Drug Develop. Res.* 56(1)23-32(2002)

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