

XAP044

## Chemical Properties

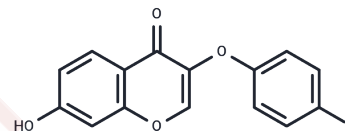
CAS No. : 196928-50-4

Formula: C<sub>15</sub>H<sub>9</sub>IO<sub>4</sub>

Molecular Weight: 380.13

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	XAP044 is a mGlu7-selective antagonist which inhibits lateral amygdala long term potentiation (LTP) in brain slices from wild type mice with a half-maximal blockade at 88 nm[1].
Targets(IC50)	GluR
In vitro	Previous study showed that in contrast to all previous mGlu7-selective drugs, XAP044 did not act through the seven-transmembrane region but rather via a binding pocket localized in mGlu7's extracellular Venus flytrap domain, a region identified for orthosteric agonist binding, which was suggested by the chimeric receptor studies in recombinant cell line assays [1].
In vivo	In rodent behavioral paradigms, XAP044 demonstrated good brain exposure and wide spectrum anti-stress and antidepressant- and anxiolytic-like efficacy. In addition, XAP044 could reduce freezing during acquisition of Pavlovian fear and innate anxiety, which was consistent with the phenotypes of mGlu7-deficient mice. Moreover, XAP044 was able to inhibit lateral amygdala long term potentiation (LTP) in brain slices from wild type mice with a half-maximal blockade at 88 nm. It was also found that there was no effect of XAP044 on LTP of mGlu7-deficient mice, suggesting that such pharmacological effect was mGlu7-dependent [1].

## Solubility Information

Solubility	DMSO: 60 mg/mL (157.84 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	2.6307 mL	13.1534 mL	26.3068 mL
5 mM	0.5261 mL	2.6307 mL	5.2614 mL
10 mM	0.2631 mL	1.3153 mL	2.6307 mL
50 mM	0.0526 mL	0.2631 mL	0.5261 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

C. E. Gee, D. Peterlik, C. Neuh user, et al. Blocking metabotropic glutamate receptor subtype 7 (mGlu7) via the Venus flytrap domain (VFTD) inhibits amygdala plasticity, stress, and anxiety-related behavior. *The Journal of Biological Chemistry* 289(16), 10975-10987 (2014).

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