

ATC 0175 free base

## Chemical Properties

CAS No. : 509118-03-0

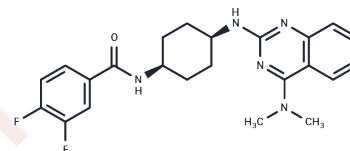
Formula: C<sub>23</sub>H<sub>25</sub>F<sub>2</sub>N<sub>5</sub>O

Molecular Weight: 425.47

Store at low temperature

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	ATC0175 is a potent, selective, and orally active antagonist of the melanin-concentrating hormone 1 receptor (MCH1R), with IC <sub>50</sub> values of 13.5 nM for MCH1R and greater than 10,000 nM for MCH2R, demonstrating antidepressant and anxiolytic effects in animal models and providing strong experimental relevance for depression and anxiety disorder research.
Targets(IC <sub>50</sub> )	Melanin-concentrating Hormone Receptor (MCHR)
In vivo	<b>Method:</b> ATC0175 was administered orally at 1, 3, or 10 mg/kg in behavioral immobility tests. <b>Result:</b> ATC0175 significantly and dose-dependently reduced immobility time[1].

## Solubility Information

Solubility	DMSO: 10 mg/mL (23.5 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3503 mL	11.7517 mL	23.5034 mL
5 mM	0.4701 mL	2.3503 mL	4.7007 mL
10 mM	0.235 mL	1.1752 mL	2.3503 mL
50 mM	0.047 mL	0.235 mL	0.4701 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

Chaki S, Yamaguchi J, Yamada H, Thomsen W, Tran TA, Semple G, Sekiguchi Y. ATC0175: an orally active melanin-concentrating hormone receptor 1 antagonist for the potential treatment of depression and anxiety. *CNS Drug Rev.* 2005 Winter;11(4):341-52.

Semple G, Tran TA, Kramer B, Hsu D, Han S, Choi J, Vallar P, Casper MD, Zou N, Hauser EK, Thomsen W, Whelan K, Sengupta D, Morgan M, Sekiguchi Y, Kanuma K, Chaki S, Grottick AJ. Pyrimidine-based antagonists of h-MCH-R1 derived from ATC0175: in vitro profiling and in vivo evaluation. *Bioorg Med Chem Lett.* 2009 Nov 1;19(21):6166-71. doi: 10.1016/j.bmcl.2009.09.003. PubMed PMID: 19773162.

Urbanavicius J, Lagos P, Torterolo P, Scorza C. Prodepressive effect induced by microinjections of MCH into the dorsal raphe: time course, dose dependence, effects on anxiety-related behaviors, and reversion by nortriptyline. *Behav Pharmacol.* 2014 Aug;25(4):316-24. doi: 10.1097/FBP.000000000000056. PubMed PMID: 25006977.

Semple G, Tran TA, Kramer B, Hsu D, Han S, Choi J, Vallar P, Casper MD, Zou N, Hauser EK, Thomsen W, Whelan K, Sengupta D, Morgan M, Sekiguchi Y, Kanuma K, Chaki S, Grottick AJ. Pyrimidine-based antagonists of h-MCH-R1 derived from ATC0175: in vitro profiling and in vivo evaluation. *Bioorg Med Chem Lett.* 2009 Nov 1;19(21):6166-71. doi: 10.1016/j.bmcl.2009.09.003. PubMed PMID: 19773162.

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