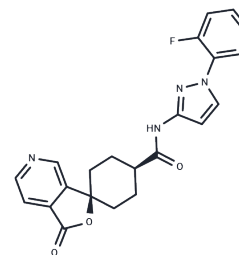


MK-0557

## Chemical Properties

CAS No. : 328232-95-7  
 Formula: C22H19FN4O3  
 Molecular Weight: 406.41  
 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	MK-0557 is a selective and orally available antagonist of the neuropeptide Y5 receptor (K <sub>i</sub> : 1.6 nM).
Targets(IC50)	Neuropeptide Y Receptor
In vitro	MK-0557 has a K <sub>i</sub> =1.3 nM at the human NPY5R, with similar affinities at rhesus, mouse, and rat NPY5R. MK-0557 has no significant binding to the human NPY1R, NPY2R, NPY4R, or mouse NPY6R at concentrations of 10 μM [2].
In vivo	MK-0557 counteracts the NPY5R-selective agonist's influence on body-weight gain and hyperphagia in C57BL/6J mice, also markedly reducing body-weight gain in diet-induced obese (DIO) mice. A 40% reduction in body-weight gain is achieved by day 35 in lean mice shifted from regular chow to a medium high-fat diet (4.2 kcal/g), following treatment with MK-0557 at a dosage of 30 mg/kg PO QD[2].

## Solubility Information

Solubility	DMSO: 25 mg/mL (61.51 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (4.92 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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	1mg	5mg	10mg
1 mM	2.4606 mL	12.3028 mL	24.6057 mL
5 mM	0.4921 mL	2.4606 mL	4.9211 mL
10 mM	0.2461 mL	1.2303 mL	2.4606 mL
50 mM	0.0492 mL	0.2461 mL	0.4921 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

Fichtner M, et al. Discovery and evaluation of spirocyclic derivatives as antagonists of the neuropeptide Y5 receptor. *Bioorg Med Chem Lett*. 2012 Apr 15;22(8):2738-43.

Erondu N, et al. Neuropeptide Y5 receptor antagonism does not induce clinically meaningful weight loss in overweight and obese adults. *Cell Metab*. 2006 Oct;4(4):275-82.

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