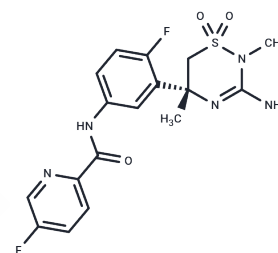


Verubecestat

Chemical Properties

CAS No. :	1286770-55-5
Formula:	C17H17F2N5O3S
Molecular Weight:	409.41
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	Verubecestat (MK-8931) (MK-8931) is an effective and specific β -secretase inhibitor and β -site APP-cleaving enzyme 1 inhibitor or BACE1 protein inhibitor.
Targets(IC50)	Beta-Secretase, BACE
In vitro	Verubecestat(MK-8931) effectively reduces A β 40 in cells with a Ki of 7.8 nM and an IC50 of 13 nM[2].
In vivo	Verubecestat(MK-8931) dramatically lowers CSF and cortex A β 40 in both rats and cynomolgus monkeys following a single oral dose. Due to the 20 h half-life of MK-8931 it is ideal for once-a-day dosing[2].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 5 mg/mL (12.21 mM), Sonication is recommended. DMSO: 83.3 mg/mL (203.46 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: 3.3 mg/mL (8.06 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

	1mg	5mg	10mg
1 mM	2.4425 mL	12.2127 mL	24.4254 mL
5 mM	0.4885 mL	2.4425 mL	4.8851 mL
10 mM	0.2443 mL	1.2213 mL	2.4425 mL
50 mM	0.0489 mL	0.2443 mL	0.4885 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

Evin G, et al. *BioDrugs*. 2016, 30(3):173-94.

Yan R, et al. *Transl Neurodegener*. 2016, 5:13.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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