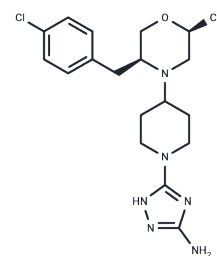


OATD-01

Chemical Properties

CAS No. : 2088453-21-6
 Formula: C₁₉H₂₇ClN₆O
 Molecular Weight: 390.91
 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	OATD-01 is a highly active inhibitor of both Chitotriosidase (CHIT1) and acidic mammalian chitinase (AMCase).
Targets(IC50)	Others
In vitro	The Ki values for hCHIT1, mCHIT1, hAMCase and mAMCase are 17.3 nM, 26.05 nM, 4.8 nM and 5.7 nM, respectively[1]. These Ki values reveals good correlation with earlier established IC50 data, which are 23 nM, 28 nM, 9 nM and 7.8 nM, respectively[1]. OATD-01 shows excellent PK profile in multiple species and is selectivity against a panel of other off-targets[1].
In vivo	OATD-01 given orally once daily in a range of doses between 30 and 100 mg/kg showed significant antifibrotic efficacy in an animal model of bleomycin-induced pulmonary fibrosis[1].

Solubility Information

Solubility	DMSO: 150 mg/mL (383.72 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 (8.44 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	2.5581 mL	12.7907 mL	25.5813 mL
5 mM	0.5116 mL	2.5581 mL	5.1163 mL
10 mM	0.2558 mL	1.2791 mL	2.5581 mL
50 mM	0.0512 mL	0.2558 mL	0.5116 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

Robert Koralewski, et al. Discovery of OATD-01, a First-in-Class Chitinase Inhibitor as Potential New Therapeutics for Idiopathic Pulmonary Fibrosis. J Med Chem. 2020 Dec 24;63(24):15527-15540.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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