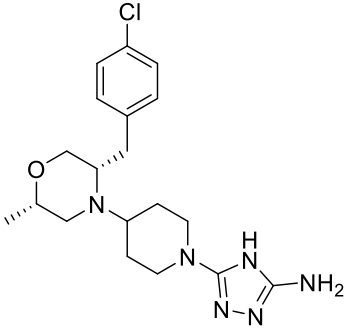


Product data sheet



MedKoo Cat#: 555744 Name: OATD-01 CAS#: 2088453-21-6 Chemical Formula: C ₁₉ H ₂₇ ClN ₆ O Exact Mass: 390.1935 Molecular Weight: 390.92	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

OATD-01 is a potent and selective chitinase inhibitor for treatment of interstitial lung diseases. OATD-01 showed (hAMCase IC₅₀=9nM, hCHIT1 IC₅₀=26nM) significantly reduced lung fibrosis in the bleomycin-induced fibrosis model, comparably to nintedanib, as assessed by modified Ashcroft scoring. The anti-fibrotic activity of OATD-01 was associated with pharmacodynamic effect: plasma chitinolytic activity was significantly reduced in mice dosed with OATD-01 as compared to control group.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	100.0	255.81

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.56 mL	12.79 mL	25.58 mL
5 mM	0.51 mL	2.56 mL	5.12 mL
10 mM	0.26 mL	0.51 mL	2.56 mL
50 mM	0.05 mL	0.26 mL	0.51 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

I Koralewski R, Dymek B, Mazur M, Sklepkiwicz P, Olejniczak S, Czestkowski W, Matyszewski K, Andryianau G, Niedziejko P, Kowalski M, Gruza M, Borek B, Jedrzejczak K, Bartoszewicz A, Pluta E, Rymaszewska A, Kania M, Rejczak T, Piasecka S, Mlacki M, Mazurkiewicz M, Piotrowicz M, Salamon M, Zagozdzon A, Napiorkowska-Gromadzka A, Bartlomiejczak A, Mozga W, Dobrzański P, Dzwonek K, Golab J, Nowotny M, Olczak J, Golebiowski A. 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. doi: 10.1021/acs.jmedchem.0c01179. Epub 2020 Oct 20. PMID: 33078933.

7. Bioactivity

Biological target:

OATD-01 is a selective chitinase inhibitor with low nanomolar activity toward CHIT1 (hCHIT1, IC₅₀=23 nM) and shows excellent PK profile in multiple species.

Product data sheet



In vitro activity

TBD

In vivo activity

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.

Reference: J Med Chem. 2020 Dec 24;63(24):15527-15540. <https://pubmed.ncbi.nlm.nih.gov/33078933/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.