

TGFβ1-IN-1

Chemical Properties

CAS No. : 2348795-14-0

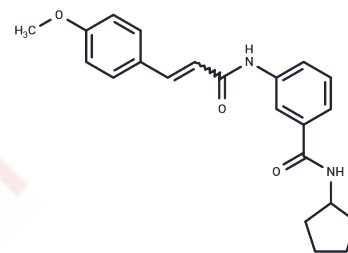
Formula: C₂₂H₂₄N₂O₃

Molecular Weight: 364.438

Storage: Keep away from direct sunlight, Keep away from moisture

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	TGFβ1-IN-1 is an orally active TGF-β1 inhibitor that inhibits the production of TGF-β1-induced fibrotic markers (α-SMA and fibronectin) and can be used for the study of cancer and autoimmune diseases.
Targets(IC50)	TGF-beta/Smad
In vitro	In HSCs (LX-2) cells, TGFβ1-IN-1 (20 μM; 24 or 72 hours) showed a survival rate of 77.5% and an inhibition rate of 30.3% for LX-2 cells. Additionally, it significantly inhibited the protein expression of fibronectin and α-SMA[1].
In vivo	In the CCl ₄ -induced liver fibrosis model of C57BL/6J mice, TGFβ1-IN-1 (15 or 30 mg/kg; oral administration; daily; 3 weeks) significantly prevented CCl ₄ -induced liver injury and reduced liver weight factor, serum ALT, AST, CHO, and TG levels[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (219.52 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (9.06 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	2.7439 mL	13.7197 mL	27.4394 mL
5 mM	0.5488 mL	2.7439 mL	5.4879 mL
10 mM	0.2744 mL	1.372 mL	2.7439 mL
50 mM	0.0549 mL	0.2744 mL	0.5488 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

Lin Yue, et al. Discovery and evaluation of phenacrylanilide derivatives as novel potential anti-liver fibrosis agents. Eur J Med Chem. 2022 Nov 15;242:114685.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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