

## CJJ300

## Chemical Properties

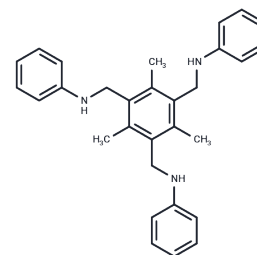
CAS No. : 1807631-83-9

Formula: C<sub>30</sub>H<sub>33</sub>N<sub>3</sub>

Molecular Weight: 435.6

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	CJJ300 is a transforming growth factor- $\beta$ (TGF- $\beta$ ) inhibitor with an IC <sub>50</sub> of 5.3 $\mu$ M, disrupting the TGF- $\beta$ -T $\beta$ R-I-T $\beta$ R-II signaling complex and inhibiting cell migration.
Targets(IC50)	TGF-beta/Smad
In vitro	CJJ300 (20, 40, and 80 $\mu$ M, 2 h; Human A549 lung epithelial cells) inhibits the phosphorylation of intracellular mediators in the downstream TGF- $\beta$ signaling pathways, significantly attenuated the increasement of P-Smad2/Smad3, P-Erk1/2, and P-Akt induced by TGF- $\beta$ . Downregulated the expression of EMT-associated proteins, including fibronectin, $\alpha$ -SMA, and MMP-2 in a dose-dependent manner without cytotoxicity. CJJ300 disturbs protein-protein interactions and prevents TGF- $\beta$ receptor dimerization (IC <sub>50</sub> = 23.6 $\pm$ 5.8 $\mu$ M). CJJ300 suppresses TGF- $\beta$ induced cell migration.[1]

## Solubility Information

Solubility	DMSO: 100 mg/mL (229.57 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 (7.58 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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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.2957 mL	11.4784 mL	22.9568 mL
5 mM	0.4591 mL	2.2957 mL	4.5914 mL
10 mM	0.2296 mL	1.1478 mL	2.2957 mL
50 mM	0.0459 mL	0.2296 mL	0.4591 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

Wu H, et al. The development of a novel transforming growth factor- $\beta$  (TGF- $\beta$ ) inhibitor that disrupts ligand-receptor interactions. Eur J Med Chem. 2020;189:112042.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481