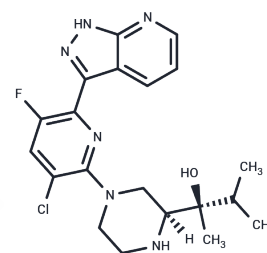


VTX-27

## Chemical Properties

CAS No. : 1321924-70-2  
 Formula: C<sub>20</sub>H<sub>24</sub>ClFN<sub>6</sub>O  
 Molecular Weight: 418.9  
 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	VTX-27 is a selective inhibitor of protein kinase C $\theta$ (PKC $\theta$ ) (Kis: 0.08 nM and 16 nM for PKC $\theta$ and PKC $\delta$ ).
Targets(IC50)	PKC
In vitro	It has also been found that VTX-27 has good selectivity to other PKC family members, especially the classic isoforms (except for PKC $\beta$ I, >1000 times, 200 times) and atypical isoforms (>10000 times). As expected, it is more challenging to obtain selectivity for more closely related novel PKC family members, which is 200 times more selective than PKC $\delta$ .
In vivo	VTX-27 demonstrates a superior PK profile characterized by low clearance (7 mL/min/kg), high oral bioavailability (65%), and a prolonged half-life (4.7 h). Following a single oral administration at doses of 6.25, 12.5, 25, and 50 mg/kg (e.g., at 25 mg/kg C <sub>max</sub> concentration 700 ng/mL), it effectively inhibits IL-2 production in a potent dose-dependent manner.

## Solubility Information

Solubility	DMSO: 125 mg/mL (298.4 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: 4 mg/mL (9.55 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	2.3872 mL	11.936 mL	23.872 mL
5 mM	0.4774 mL	2.3872 mL	4.7744 mL
10 mM	0.2387 mL	1.1936 mL	2.3872 mL
50 mM	0.0477 mL	0.2387 mL	0.4774 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

Jimenez JM, et al. Design and optimization of selective protein kinase C  $\theta$  (PKC $\theta$ ) inhibitors for the treatment of autoimmune diseases. J Med Chem. 2013 Mar 14;56(5):1799-810.

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