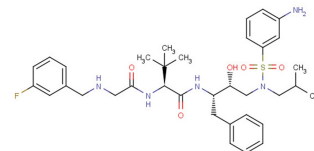


DPC-681

**Chemical Properties**

CAS No.: 284661-68-3  
Formula: C<sub>35</sub>H<sub>48</sub>FN<sub>5</sub>O<sub>5</sub>S  
Molecular Weight: 669.85  
Appearance: N/A  
Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).

**Biological Description**

Description	DPC-681 is a potent and selective HIV protease inhibitor (IC <sub>90</sub> s: 4 to 40 nM for wild-type HIV-1).
Targets(IC <sub>50</sub> )	Others: None
In vitro	DPC 681 displays no loss in potency toward recombinant mutant HIVs with the D30N mutation and a fivefold or smaller loss in potency toward mutant variants with three to five amino acid substitutions. When all of the HIV-1 strains tested are considered, the average concentrations required for 90% inhibition of replication were 7.3 ± 3.4 for DPC 681.
In vivo	The total body clearance (CL) of DPC 681 in dogs was high (1.8 liters/h/kg) equaling hepatic blood flow for this species (1.8 liters/h/kg). The C <sub>max</sub> increased ninefold between the 10- and 30-mg/kg DPC 681 dose groups. Bioavailability also increased between the 10- and 30-mg/kg dose groups (18.3 and 78.1%, respectively), after oral dosing. These data show that hepatic extraction (first-pass effect) can be saturated in the dog.

**Solubility Information**

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.493 mL	7.464 mL	14.929 mL
5 mM	0.299 mL	1.493 mL	2.986 mL
10 mM	0.149 mL	0.746 mL	1.493 mL
50 mM	0.03 mL	0.149 mL	0.299 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

1. Kaltenbach RF 3rd, et al. DPC 681 and DPC 684: potent, selective inhibitors of human immunodeficiency virus protease active against clinically relevant mutant variants. Antimicrob Agents Chemother. 2001 Nov;45(11):3021-8.

Inhibitors · Natural Compounds · Compound Libraries

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