DPC-681

Cat. No.: HY-19400
CAS No.: 284661-68-3
Molecular Formula: C₃₅H₄₈FN₅O₅S
Molecular Weight: 669.85
Target: HIV Protease; HIV
Pathway: Anti-infection; Metabolic Enzyme/Protease
Storage:
- Powder: -20°C 3 years
- Powder: 4°C 2 years
- In solvent: -80°C 6 months
- In solvent: -20°C 1 month

BIOLOGICAL ACTIVITY

DPC-681 is a potent and selective inhibitor of HIV protease with IC90s for wild-type HIV-1 of 4 to 40 nM. IC50 value: 4 - 40 nM [1].

Target: HIV protease

in vitro: DPC 681 is extremely potent inhibitor of wild-type HIV-1. 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. DPC 681 shows 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. [1]

in vivo: The total body clearance (CL) of DPC 681 in dogs was high (1.8 liter/h/kg) equaling hepatic blood flow for this species (1.8 liter/h/kg). After an oral dosing, the Cmax 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). These data suggest that hepatic extraction (first-pass effect) can be saturated in the dog. [1]

REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.