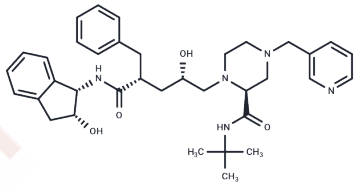
Data Sheet (Cat.No.T5863L)

TargetMol

Indinavir

Chemical Properties



CAS No. : 150378-17-9

Formula: C36H47N5O4

Molecular Weight: 613.79

Storage: Store at low temperature
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	Indinavir is an orally administered, specific HIV protease inhibitor commonly used in combination therapy as part of highly active antiretroviral therapy (HAART) for HIV/AIDS. Indinavir also inhibits the activation of MMP-2 in endothelial cells and exhibits affinity for α7-nAchR and SARS-CoV-2 Mpro.
Targets(IC50)	Apoptosis,MMP,HIV Protease,SARS-CoV
In vitro	**Method**: Peripheral blood mononuclear cells (PBMCs) from healthy and HIV-infected individuals were pretreated with Indinavir at concentrations ranging from 0 to 50 μM for 18 hours, followed by stimulation with anti-CD3 antibody for an additional 48 hours. **Result**: Indinavir inhibited anti-CD3-induced cell cycle progression in a dose-dependent manner and reduced lymphoproliferative responses in a dose-dependent fashion. [1]
In vivo	**Method**: Huh7 and SK-HEP-1 hepatocarcinoma cells were subcutaneously implanted into nude mice. After tumor establishment, Indinavir was administered by oral gavage at a dose of 70 mg/kg once daily for 3 weeks. **Result**: Compared with the control group, Indinavir delayed the growth of subcutaneously implanted hepatocarcinoma xenografts in nude mice.[2]

Solubility Information

Solubility	DMSO: 80 mg/mL (130.34 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6292 mL	8.1461 mL	16.2922 mL
5 mM	0.3258 mL	1.6292 mL	3.2584 mL
10 mM	0.1629 mL	0.8146 mL	1.6292 mL
50 mM	0.0326 mL	0.1629 mL	0.3258 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

Chavan S, et al. The HIV protease inhibitor Indinavir inhibits cell-cycle progression in vitro in lymphocytes of HIV-infected and uninfected individuals. Blood. 2001 Jul 15;98(2):383-9.
Esposito V, et al. Evaluation of antitumoral properties of the protease inhibitor indinavir in a murine model of hepatocarcinoma. Clin Cancer Res. 2006 Apr 15;12(8):2634-9.
Liu F, et al. Kinetic, stability, and structural changes in high-resolution crystal structures of HIV-1 protease with drug-resistant mutations L24I, I50V, and G73S. J Mol Biol. 2005 Dec 9;354(4):789-800.
Hall DC Jr, et al. A search for medications to treat COVID-19 via in silico molecular docking models of the SARS-CoV-2 spike glycoprotein and 3CL protease. Travel Med Infect Dis. 2020 May-Jun;35:101646.