Fumagillin

Cat. No.: HY-B0751 CAS No.: 23110-15-8 Molecular Formula: $C_{26}H_{34}O_{7}$ Molecular Weight: 458.54

Target: Parasite; HIV; Antibiotic

Pathway: Anti-infection

Storage: 4°C, stored under nitrogen

* In solvent: -80°C, 6 months; -20°C, 1 month (stored under nitrogen)

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 250 mg/mL (545.21 mM; ultrasonic and warming and heat to 60°C)

 $H_2O: < 0.1 \text{ mg/mL (insoluble)}$

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.1808 mL	10.9042 mL	21.8083 mL
	5 mM	0.4362 mL	2.1808 mL	4.3617 mL
	10 mM	0.2181 mL	1.0904 mL	2.1808 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.45 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline) Solubility: 2.5 mg/mL (5.45 mM); Suspended solution; Need ultrasonic
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.54 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Fumagillin(NSC9168) is an antimicrobial compound first isolated in 1949 from the fungus Aspergillus fumigatu. Fumagillin can inhibits HIV\(\text{M1}\) infection through the inhibition of HIV-1 viral protein R (Vpr) activity.		
IC ₅₀ & Target	HIV-1	Amebae	
In Vitro	Fumagillin is an active amebicide and anti-infective isolated from the fungus Aspergillus fumigatus. Fumagillin does exhibit some side effects that have deterred its acceptance as a viable treatment, but the current body of research on the synthesis of novel analogs of this molecule shows an exciting and promising revival of this drug as both an anti-infective and		

antiangiogenic agent [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Lefkove, B., B. Govindarajan, and J.L. Arbiser, Fumagillin: an anti-infective as a parent molecule for novel angiogenesis inhibitors. Expert Rev Anti Infect Ther, 2007. 5(4): p. 573-9.

[2]. Watanabe N, et al. Fumagillin suppresses HIV-1 infection of macrophages through the inhibition of Vpr activity. FEBS Lett. 2006 May 15;580(11):2598-602.

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

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