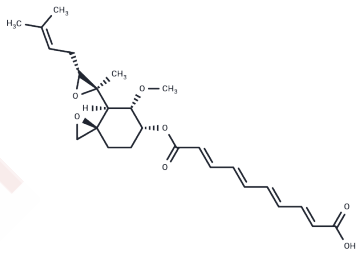
Data Sheet (Cat.No.T6841)

TargetMol

Fumagillin

Chemical Properties



CAS No. : 23110-15-8

Formula: C26H34O7

Molecular Weight: 458.54

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	Fumagillin (Amebacilin) is a selective and potent irreversible inhibitor of Methionine aminopeptidase 2 (MetAP2), used as an antibiotic to treat microsporidiosis.
Targets(IC50)	HIV Protease,Antibiotic,Parasite
In vitro	Fumagillin selectively inhibits the growth of a Δmap1 strain but not a wild-type or a Δmap2 S. cerevisiae strain missing MetAP-2. [1] In budding yeast cells, as a potent inhibitor of angiogenesis, Fumagillin not only reverses the growth inhibitory activity of Vpr, but also inhibits Vpr-dependent viral gene expression upon the infection of human macrophages. [3] Though the toxicity of fumagillin has limited its use for human applications, the analogues using structure-activity relationships relating to its angiogenesis properties may be further explored in the treatment of angiogenesis-dependent diseases. [4]
In vivo	In DEN-treated rats, fumagillin (30 mg/kg, i.p.) inhibits both progression of HCC in the liver itself and systemic metastasis. [2]

Solubility Information

Solubility	DMSO: 250 mg/mL (545.21 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: 10 mg/mL (21.81 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (21.81 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0436 mL	0.2181 mL	0.4362 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

Sin N, et al. Proc Natl Acad Sci U S A. 1997, 94(12), 6099-6103.
Sheen IS, et al. World J Gastroenterol. 2005, 11(6), 771-777.
Watanabe N, et al. FEBS Lett. 2006, 580(11), 2598-2602.
van den Heever JP, et al. J Agric Food Chem. 2014, 62(13), 2728-2737.