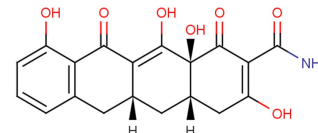


Incyclinide

Chemical Properties

CAS No.:	15866-90-7
Formula:	C ₁₉ H ₁₇ NO ₇
Molecular Weight:	371.34
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Incyclinide is a matrix metalloproteinase (MMP) inhibitor. Thereby causing extracellular matrix degradation, tumor growth and invasion, and inhibiting angiogenesis, and metastasis.
Targets(IC ₅₀)	Others: None
In vitro	Incyclinide has been shown to experimentally suppress prostate cancer, colon adenocarcinoma, and melanoma invasiveness in cell culture. Adding incyclinide at final concentrations of 5 to 20 μ M inhibits MT1-MMP gelatinolytic and caseinolytic activity, blocks MT1-MMP activation of pro-MMP-2, and decreases invasiveness of HT-1080 fibrosarcoma cells [1]. Most of the MICs of CMT-3 against filamentous fungi are found to be between 0.25 and 8 μ g/mL, and the inhibition of viability of these fungi by incyclinide is routinely higher than 90% [2].
In vivo	Probably by reducing the number of osteoclasts at the compression side, Incyclinide suppresses tooth movement in the rat. Reduced MMP activity by incyclinide might also directly inhibit degradation of the organic bone matrix. This might be due to the induction of apoptosis in activated osteoclasts or reduced osteoclast migration [3].

Solubility Information

Solubility	DMSO: 100 mg/mL (269.29 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.693 mL	13.465 mL	26.929 mL
5 mM	0.539 mL	2.693 mL	5.386 mL
10 mM	0.269 mL	1.346 mL	2.693 mL
50 mM	0.054 mL	0.269 mL	0.539 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. Lee HM, et al. CMT-3, a non-antimicrobial tetracycline (TC), inhibits MT1-MMP activity: relevance to cancer. *Curr Med Chem*. 2001 Feb;8(3):257-60.
2. Liu Y, A chemically modified tetracycline (CMT-3) is a new antifungal agent. *Antimicrob Agents Chemother*. 2002 May;46(5):1447-54.
3. Bildt MM, et al. CMT-3 inhibits orthodontic tooth displacement in the rat. *Arch Oral Biol*. 2007 Jun;52(6):571-8.

Inhibitors · Natural Compounds · Compound Libraries

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