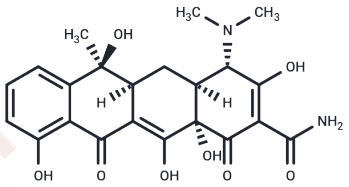
Data Sheet (Cat.No.T0912L)

TargetMol

Tetracycline

Chemical Properties



CAS No. : 60-54-8

Formula: C22H24N2O8

Molecular Weight: 444.43

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Tetracycline (Tetracyclin) is a broad-spectrum antibiotic with inhibitory activity against a wide range of Gram-positive and Gram-negative bacteria, as well as Mycoplasma, Mycoplasma, and Rickettsia. Tetracycline is commonly used in anti-infective studies.
Targets(IC50)	ribosome,Antibacterial,Antibiotic
In vitro	**METHODS**: Neuroblastoma cells were treated with Binimetinib (0-2 μM) for 24-120 h. Cell viability was measured by MTT assay. **RESULTS**: Four cell lines, CHP-212, SK-N-BE, SK-N-AS and SJ-NB-10, were sensitive to Binimetinib, achieving <50% survival after 24-120 h of treatment, while five cell lines were resistant to the drug. [1] **METHODS**: NSCLC cells A549, H157 and H522 were treated with Binimetinib (0.5-1 μM) for 48 h. Cell cycle was measured by flow cytometry. **RESULTS**: Binimetinib induced G1 phase block in three sensitive NSCLC cell lines at relatively low concentration ranges, e.g. 0.5 and 1 μM. [2]
In vivo	**METHODS**: To detect in vivo antitumor activity, Binimetinib (5 mg/kg) and BMK120 (7.5 mg/kg) were administered by gavage to athymic (nu/nu) mice bearing A549 xenografts once daily for 21 days. **RESULTS**: Binimetinib and BKM120 alone at the doses tested only weakly inhibited the growth of A549 xenografts, but the combination of Binimetinib and BKM120 significantly inhibited the growth of A549 xenografts. [2]

Solubility Information

Solubility	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 15 mg/mL (33.75 mM),Solution. DMSO: 45 mg/mL (101.25 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2501 mL	11.2504 mL	22.5007 mL
5 mM	0.450 mL	2.2501 mL	4.5001 mL
10 mM	0.225 mL	1.125 mL	2.2501 mL
50 mM	0.045 mL	0.225 mL	0.450 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.

Reference

Hut EF, et al. Two Antibiotics, Ampicillin and Tetracycline, Exert Different Effects in HT-29 Colorectal Adenocarcinoma Cells in Terms of Cell Viability and Migration Capacity. Curr Oncol. 2021 Jul 4;28(4):2466-2480.
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Chen Y, Zhu Y, Shen M, et al. Rapid and automated detection of six contaminants in milk using a centrifugal microfluidic platform with two rotation axes. Analytical Chemistry. 2019 May 24
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Khan K Y, Ali B, Zhang S, et al. Effects of antibiotics stress on growth variables, ultrastructure, and metabolite pattern of Brassica rapa ssp. Chinensis[J]. Science of The Total Environment. 2021: 146333.