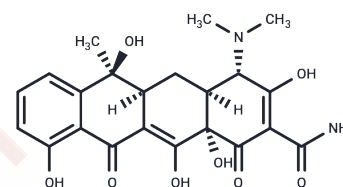


## Tetracycline

## Chemical Properties

CAS No. :	60-54-8
Formula:	C <sub>22</sub> H <sub>24</sub> N <sub>2</sub> O <sub>8</sub>
Molecular Weight:	444.43
Storage:	Powder: -20°C for 3 years Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Tetracycline is an orally active broad-spectrum antibiotic that exhibits inhibitory activity against various Gram-positive and Gram-negative bacteria, as well as Chlamydia, Mycoplasma, and Rickettsia. It is commonly used in anti-infection research and can also be used to induce tumor regression based on BCR-ABL gene silencing.
Targets(IC50)	ribosome,Antibacterial,Antibiotic
In vitro	<p><b>METHODS:</b> Neuroblastoma cells were treated with Binimetinib (0-2 <math>\mu</math>M) for 24-120 h. Cell viability was measured by MTT assay.</p> <p><b>RESULTS:</b> Four cell lines, CHP-212, SK-N-BE, SK-N-AS and SJ-NB-10, were sensitive to Binimetinib, achieving &lt;50% survival after 24-120 h of treatment, while five cell lines were resistant to the drug. [1]</p> <p><b>METHODS:</b> NSCLC cells A549, H157 and H522 were treated with Binimetinib (0.5-1 <math>\mu</math>M) for 48 h. Cell cycle was measured by flow cytometry.</p> <p><b>RESULTS:</b> Binimetinib induced G1 phase block in three sensitive NSCLC cell lines at relatively low concentration ranges, e.g. 0.5 and 1 <math>\mu</math>M. [2]</p>
In vivo	<p><b>METHODS:</b> To detect in vivo antitumor activity, Binimetinib (5 mg/kg) and BKM120 (7.5 mg/kg) were administered by gavage to athymic (nu/nu) mice bearing A549 xenografts once daily for 21 days.</p> <p><b>RESULTS:</b> 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]</p>

## Solubility Information

Solubility	DMSO: 262.5 mg/mL (590.64 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: 15 mg/mL (33.75 mM),Solution. <i>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.</i>

## 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.

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

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