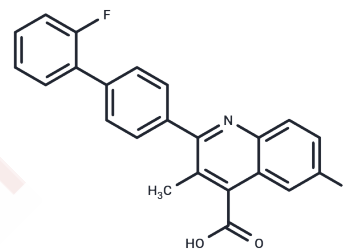


## Brequinar

## Chemical Properties

CAS No. :	96187-53-0
Formula:	C <sub>23</sub> H <sub>15</sub> F <sub>2</sub> N <sub>2</sub> O <sub>2</sub>
Molecular Weight:	375.37
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	Brequinar (NSC-368390) is a potent inhibitor of dihydroorotate dehydrogenase, with potent activities against a broad spectrum of viruses.
Targets(IC50)	Dehydrogenase,DNA/RNA Synthesis,SARS-CoV,Virus Protease

## Solubility Information

Solubility	DMSO: 28 mg/mL (74.59 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (5.33 mM),Sonication is recommended. <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	2.664 mL	13.3202 mL	26.6404 mL
5 mM	0.5328 mL	2.664 mL	5.3281 mL
10 mM	0.2664 mL	1.332 mL	2.664 mL
50 mM	0.0533 mL	0.2664 mL	0.5328 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

Qing M, et al. Characterization of dengue virus resistance to brequinar in cell culture. *Antimicrob Agents Chemother.* 2010 Sep;54(9):3686-95.

Tan Q, Zhang X, Li S, et al. DMT1 differentially regulates mitochondrial complex activities to reduce glutathione loss and mitigate ferroptosis. *Free Radical Biology and Medicine.* 2023

Schnellrath LC, et al. Potent antiviral activity of brequinar against the emerging Cantagalo virus in cell culture. *Int J Antimicrob Agents.* 2011 Nov;38(5):435-41.

Xu X, et al. In vitro and in vivo mechanisms of action of the antiproliferative and immunosuppressive agent, brequinar sodium. *J Immunol.* 1998 Jan 15;160(2):846-53.

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