

## Cletoquine

## Chemical Properties

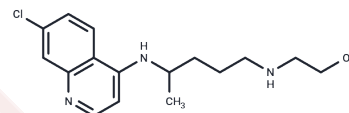
CAS No. : 4298-15-1

Formula: C<sub>16</sub>H<sub>22</sub>ClN<sub>3</sub>O

Molecular Weight: 307.82

Keep away from moisture, Store under nitrogen  
 Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Cletoquine is a major active metabolite of Hydroxychloroquine. Cletoquine has the ability to against the chikungunya virus (CHIKV). Cletoquine has antimalarial effects and has the potential for autoimmune disease treatment.
Targets(IC50)	Parasite, Antifection, Influenza Virus
In vivo	Hydroxychloroquine is administered intravenously at a dosage of 5 mg/kg to BALB/c mice to assess the Cletoquine levels in blood and tissues. A tissue to blood concentration ratio (Kp) of $\geq 1$ signifies Cletoquine's accumulation in tissues. The observed descending order of the Cletoquine Kp ratios across various tissues is liver (114.3), kidney (24.4), spleen (19.3), lungs (16.5), and heart (5.5).

## Solubility Information

Solubility	DMSO: 55 mg/mL (178.68 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2487 mL	16.2433 mL	32.4865 mL
5 mM	0.6497 mL	3.2487 mL	6.4973 mL
10 mM	0.3249 mL	1.6243 mL	3.2487 mL
50 mM	0.065 mL	0.3249 mL	0.6497 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

Kumar M, et al. Molecular docking studies of chloroquine and its derivatives against P23pro-zbd domain of chikungunya virus: Implication in designing of novel therapeutic strategies. J Cell Biochem. 2019 Oct;120(10): 18298-18308.

Charlier B, et al. Development of a novel ion-pairing HPLC-FL method for the separation and quantification of hydroxychloroquine and its metabolites in whole blood. Biomed Chromatogr. 2018 Aug;32(8):e4258.

Chhonker YS, et al. Simultaneous quantitation of hydroxychloroquine and its metabolites in mouse blood and tissues using LC-ESI-MS/MS: An application for pharmacokinetic studies. J Chromatogr B Analyt Technol Biomed Life Sci. 2018 Jan 1;1072:320-327.

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