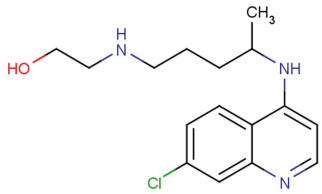
Data Sheet (Cat.No.T10835)

TargetMol
A DRUG SCREENING EXPERT

Cletoquine

Chemical Properties



CAS No.:	4298-15-1
Formula:	C16H22ClN3O
Molecular Weight:	307.82
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Cletoquine (Desethylhydroxychloroquine) 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(IC_{50})	Chikungunya virus (CHIKV): None
In vivo	Hydroxychloroquine (5 mg/kg intravenously) is administered to BALB/c mice for blood and tissue to determine the content of Cletoquine. The tissue to blood concentration ratio (Kp) is ≥1, indicating the accumulation of Cletoquine in tissues. The Cletoquine Kp ratios for the various tissues are observed in the descending order of liver (114.3)>kidney (24.4)>spleen (19.3)>lungs (16.5)>heart (5.5) [3].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.249 mL	16.243 mL	32.487 mL
5 mM	0.65 mL	3.249 mL	6.497 mL
10 mM	0.325 mL	1.624 mL	3.249 mL
50 mM	0.065 mL	0.325 mL	0.65 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 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. 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.
2. 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.
3. 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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