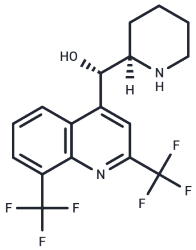
Data Sheet (Cat.No.T0860L)

TargetMol

Mefloquine

Chemical Properties



CAS No. : 53230-10-7

Formula: C17H16F6N2O

Molecular Weight: 378.31

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	Mefloquine (Ro 215998), a quinoline antimalarial agent, is an anti-SARS-CoV-2 entry inhibitor. Mefloquine is also a K+ channel (KvQT1/minK) antagonist with an IC50 of ~1 μM. Mefloquine can be used for malaria, systemic lupus erythematosus, and cancer research.
Targets(IC50)	Others,Parasite,Autophagy,Potassium Channel,ROS Kinase,SARS-CoV

Solubility Information

Solubility	DMSO: 55.56 mg/mL (146.86 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: 5 mg/mL (13.22 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6433 mL	13.2167 mL	26.4333 mL
5 mM	0.5287 mL	2.6433 mL	5.2867 mL
10 mM	0.2643 mL	1.3217 mL	2.6433 mL
50 mM	0.0529 mL	0.2643 mL	0.5287 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

Kang J, et al. Interactions of the antimalarial drug mefloquine with the human cardiac potassium channels KvLQT1/minK andHERG. J Pharmacol Exp Ther. 2001 Oct;299(1):290-6.

Janowsky A, Eshleman AJ, Johnson RA, Wolfrum KM, Hinrichs DJ, Yang J, Zabriskie TM, Smilkstein MJ, Riscoe MK. Mefloquine and psychotomimetics share neurotransmitter receptor and transporter interactions in vitro. Psychopharmacology (Berl). 2014 Jul;231(14):2771-83. doi: 10.1007/s00213-014-3446-0. Epub 2014 Feb 2. PubMed PMID: 24488404; PubMed Central PMCID: PMC4097020.

Tao Y, Xue J, Jiang B, Zhang HB, Xiao SH. Significance of higher drug concentration in erythrocytes of mice infected with Schistosoma japonicum and treated orally with mefloquine at single doses. Parasitol Res. 2015 Dec;114(12): 4521-30. doi: 10.1007/s00436-015-4696-4. Epub 2015 Sep 4. PubMed PMID: 26341799.

Maaswinkel H, Zhu L, Weng W. A small-fish model for behavioral-toxicological screening of new antimalarial drugs: a comparison between erythro- and threo-mefloquine. BMC Res Notes. 2015 Apr 2;8:122. doi: 10.1186 /s13104-015-1088-x. PubMed PMID: 25886204; PubMed Central PMCID: PMC4386100.