

# Mefloquine (hydrochloride)

Catalog No: tcsc1430



## Available Sizes

**Size:** 100mg

**Size:** 500mg



## Specifications

**CAS No:**

51773-92-3

**Formula:**

$C_{17}H_{17}ClF_6N_2O$

**Pathway:**

Autophagy;Anti-infection

**Target:**

Autophagy;Parasite

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 100$  mg/mL (241.10 mM)

**Alternative Names:**

Mefloquin hydrochloride

**Observed Molecular Weight:**

414.77

## Product Description

Mefloquine hydrochloride is a quinoline antimalarial drug that is structurally related to the antiarrhythmic agent quinidine.

IC50 Value: 1 microM ( for K<sup>+</sup> channel) [1]

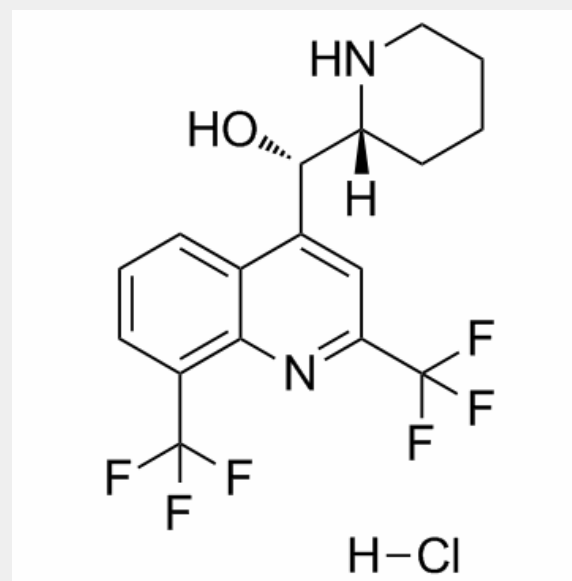
Target: Antiparasitic

Mefloquine is widely used in both the treatment and prophylaxis of *Plasmodium falciparum* malaria. MQ can induces oxidative stress in vitro. Evidence indicates that reactive oxygen species (ROS) may be used as a therapeutic modality to kill cancer cells [2].

in vitro: Mefloquine inhibited KvLQT1/minK channel currents with an IC50 value of approximately 1 microM. Mefloquine slowed the activation rate of KvLQT1/minK and more block was evident at lower membrane potentials compared with higher ones. HERG channel currents were about 6-fold less sensitive to block by mefloquine (IC50 = 5.6 microM). Block of HERG displayed a positive voltage dependence with maximal inhibition obtained at more depolarized potentials [1]. MQ has a highly selective cytotoxicity that inhibits PCa cell growth. MQ-mediated ROS simultaneously downregulated Akt phosphorylation and activated extracellular signal-regulated kinase (ERK), c-Jun N-terminal kinase (JNK) and adenosine monophosphate-activated protein kinase (AMPK) signaling in PC3 cells [2].

in vivo: Pregnant rats were treated orally with AS (15 and 40 mg/kg body weight (bwt)/day), MQ (30 and 80 mg/kg bwt/day) and AS/MQ (15/30 and 40/80 mg/kg bwt/day) on days 9-11 post coitum (pc). The dams were euthanized on day 12 pc and gestational and embryos histological parameters were evaluated [3].

Clinical trial: Activity of Mefloquine Against Urinary Schistosomiasis . Phase 2



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