

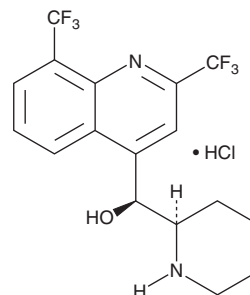
PRODUCT INFORMATION



Mefloquine (hydrochloride)

Item No. 23665

CAS Registry No.: 51773-92-3
Formal Name: *rel*- α S-(2R)-2-piperidinyl-2,8-bis(trifluoromethyl)-4-quinolinemethanol, monohydrochloride
Synonyms: NSC 157387, Ro 21-5998/001
MF: C₁₇H₁₆F₆N₂O • HCl
FW: 414.8
Purity: \geq 98%
UV/Vis.: λ_{\max} : 210, 222 nm
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Mefloquine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the mefloquine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Mefloquine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of mefloquine (hydrochloride) in ethanol and DMF is approximately 10 mg/ml and approximately 20 mg/ml in DMSO.

Description

Mefloquine is an orally bioavailable quinolinemethanol derivative with antimalarial properties.¹ It increases mean survival time and abolishes malarial infection in mice at doses of 10 and 40 mg/kg, respectively. It inhibits hemozoin formation, leading to an increase in free heme in purified trophozoites.² It acts as an antagonist at the adenosine A_{2A} receptor, an agonist at serotonin 5-HT_{2A} and 5-HT_{2C} receptors, and has various effects on calcium homeostasis.^{3,4} Mefloquine increases the time mice spend in the light side of the light-dark box test and reduces immobility time in the tail suspension test, parameters typically associated with anxiolytic and antidepressant-like behavior.⁴ Formulations containing mefloquine have been used to prevent and treat malaria but have been associated with neuropsychiatric disturbances.

References

1. Ohnmacht, C.J., Patel, A.R., and Lutz, R.E. Antimalarials. 7. Bis(trifluoromethyl)- α -(2-piperidyl)-4-quinolinemethanols. *J. Med Chem.* **14**(10), 926-928 (1971).
2. Combrinck, J.M., Mabothe, T.E., Ncokazi, K.K., *et al.* Insights into the role of heme in the mechanism of action of antimalarials. *ACS Chem Biol.* **8**(1), 133-137 (2013).
3. Grabias, B. and Kumar, S. Adverse neuropsychiatric effects of antimalarial drugs. *Expert Opin. Drug Saf.* **15**(7), 903-910 (2016).
4. Holden, J.M., Slivicki, R., Dahl, R., *et al.* Behavioral effects of mefloquine in tail suspension and light/dark tests. *Springerplus* **4**:702 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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