

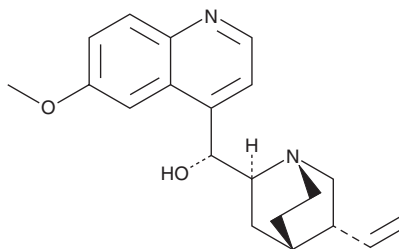
PRODUCT INFORMATION



Quinine

Item No. 23958

CAS Registry No.: 130-95-0
Formal Name: (8 α ,9R)-6'-methoxy-cinchonan-9-ol
Synonym: NSC 192949
MF: C₂₀H₂₄N₂O₂
FW: 324.4
Purity: \geq 95%
UV/Vis.: λ_{max} : 230, 278, 331 nm
Supplied as: A crystalline 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

Quinine is supplied as a crystalline solid. A stock solution may be made by dissolving the quinine in the solvent of choice, which should be purged with an inert gas. Quinine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of quinine in these solvents is approximately 30 mg/ml.

Description

Quinine is an alkaloid antimalarial agent that has MIC values ranging from 10 to 500 nM for 60 Thai isolates of *P. falciparum*.¹ It inhibits hemozoin formation in purified trophozoites, leading to an increase in free heme, similar to the mechanism of action of chloroquine (Item No. 14194).² In mice, quinine reduces *P. berghei* parasite load in the blood with a minimum effective dose (MED) of 150 mg/kg.³ Formulations containing quinine have been used in the treatment of uncomplicated malaria.

References

1. Thaitong, S., Beale, G.H., and Chutmongkonkul, M. Susceptibility of *Plasmodium falciparum* to five drugs: An *in vitro* study of isolates mainly from Thailand. *Trans. R. Soc. Trop. Med. Hyg.* **77**(2), 228-231 (1983).
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. Thurston, J.P. The action of antimalarial drugs in mice infected with *Plasmodium berghei*. *Br. J. Pharmacol. Chemother.* **5**(3), 409-416 (1950).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM