

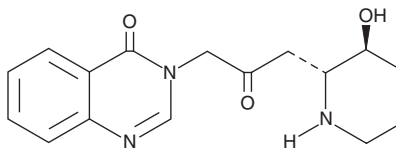
PRODUCT INFORMATION



Febrifugine

Item No. 14246

CAS Registry No.: 24159-07-7
Formal Name: 3-[3-[(2R,3S)-3-hydroxy-2-piperidiny]-2-oxopropyl]-4(3H)-quinazolinone
Synonyms: (+)-Febrifugine, NSC 315535
MF: C₁₆H₁₉N₃O₃
FW: 301.3
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 266, 302, 314 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Febrifugine is supplied as a crystalline solid. A stock solution may be made by dissolving the febrifugine in the solvent of choice. Febrifugine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of febrifugine in these solvents is approximately 0.1, 3, and 1.5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of febrifugine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of febrifugine in PBS, pH 7.2, is approximately 2.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Febrifugine is a quinazolinone alkaloid originally isolated from *D. febrifuga* that has antimalarial activity.^{1,2} It reduces parasitemia and decreases mortality in mice infected with the *P. berghei* strain NK65 when administered at a dose of 1 mg/kg per day beginning prior to or on the day of infection.³

References

1. Koepfli, J.B., Mead, J.F., and Brockman, J.A., Jr. An alkaloid with high antimalarial activity from *Dichroa febrifuga*. *J. Am. Chem. Soc.* **69(7)**, 1837 (1947).
2. McLaughlin, N.P., Evans, P., and Pines, M. The chemistry and biology of febrifugine and halofuginone. *Bioorg. Med. Chem.* **22(7)**, 1993-2004 (2014).
3. Murata, K., Takano, F., Fushiya, S., et al. Potentiation by febrifugine of host defense in mice against *Plasmodium berghei* NK65. *Biochem. Pharmacol.* **58(10)**, 1593-1601 (1999).

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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