

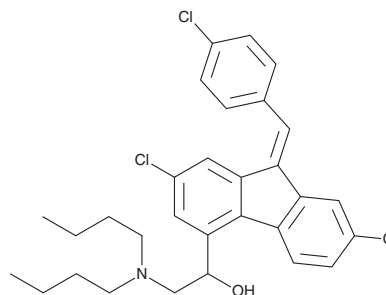
PRODUCT INFORMATION



Lumefantrine

Item No. 20678

CAS Registry No.: 82186-77-4
Formal Name: (9Z)-2,7-dichloro-9-[(4-chlorophenyl)methylene]- α -[(dibutylamino)methyl]-9H-fluorene-4-methanol
Synonyms: Benflumetol, CPG-56695
MF: C₃₀H₃₂Cl₃NO
FW: 528.9
Purity: \geq 98%
UV/Vis.: λ_{max} : 234, 265, 302, 335 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

Lumefantrine is supplied as a crystalline solid. A stock solution may be made by dissolving the lumefantrine in the solvent of choice. Lumefantrine is soluble in the organic solvent dimethyl formamide (DMF), which should be purged with an inert gas, at a concentration of approximately 5 mg/ml.

Lumefantrine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lumefantrine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Lumefantrine has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Lumefantrine is an antimalarial drug that is used in combination with artemether (Item No. 11815).¹ The pairing of lumefantrine and artemether is a major form of oral artemisinin combination therapy used against uncomplicated *P. falciparum* malaria.^{2,3} Lumefantrine also blocks the rapidly activating delayed-rectifier potassium channel (I_{Kr}; IC₅₀ = 8.1 μ M).⁴

References

1. Pascual, A., Parola, P., Benoit-Vical, F., *et al.* *Ex vivo* activity of the ACT new components pyronaridine and piperazine in comparison with conventional ACT drugs against isolates of *Plasmodium falciparum*. *Malar. J.* **11**, 1-9 (2012).
2. Askling, H.H., Bruneel, F., Burchard, G., *et al.* Management of imported malaria in Europe. *Malar. J.* **11**, 1-15 (2012).
3. Mayxay, M., Khanthavong, M., Chanthongthip, O., *et al.* Efficacy of artemether-lumefantrine, the nationally-recommended artemisinin combination for the treatment of uncomplicated *falciparum* malaria, in southern Laos. *Malar. J.* **11**(1), 1-17 (2012).
4. Du, L.-P., Tsai, K.-C., Li, M.-Y., *et al.* The pharmacophore hypotheses of I_{Kr} potassium channel blockers: Novel class III antiarrhythmic agents. *Bioorg. Med. Chem. Lett.* **14**(18), 4771-4777 (2004).

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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