

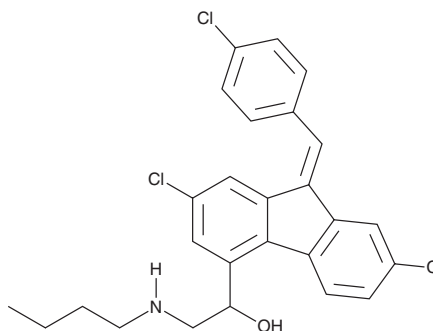
# PRODUCT INFORMATION



## desbutyl Lumefantrine

Item No. 24935

**CAS Registry No.:** 355841-11-1  
**Formal Name:** (9Z)- $\alpha$ -[(butylamino)methyl]-2,7-dichloro-9-[(4-chlorophenyl)methylene]-9H-fluorene-4-methanol  
**Synonyms:** DBB, DBL, desbutyl Benflumetol, monodesbutyl Benflumetol  
**MF:** C<sub>26</sub>H<sub>24</sub>Cl<sub>3</sub>NO  
**FW:** 472.8  
**Purity:**  $\geq$ 95%  
**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

desbutyl Lumefantrine is supplied as a solid. A stock solution may be made by dissolving the desbutyl lumefantrine in the solvent of choice, which should be purged with an inert gas. desbutyl Lumefantrine is slightly soluble in dichloromethane (sonicated) and DMSO.

### Description

desbutyl Lumefantrine is an active metabolite of the antimalarial agent lumefantrine (Item No. 20678).<sup>1,2</sup> It is formed from lumefantrine by the cytochrome P450 (CYP) isoform CYP3A4.<sup>3</sup> desbutyl Lumefantrine is active against chloroquine-sensitive and -resistant strains of *P. falciparum* (IC<sub>50</sub>s = 9 and 9.5 nM, respectively).<sup>1</sup> It inhibits the human-ether-a-go-go (hERG) potassium channel, also known as Kv11.1, in HEK293 cells expressing the human channel (IC<sub>50</sub> = 5.49  $\mu$ M).<sup>2</sup>

### References

1. Wong, R.P.M., Salman, S., Ilett, K.F., *et al.* Desbutyl-lumefantrine is a metabolite of lumefantrine with potent *in vitro* antimalarial activity that may influence artemether-lumefantrine treatment outcome. *Antimicrob. Agents Chemother.* **55(3)**, 1194-1198 (2011).
2. Traebert, M., Dumotier, B., Meister, L., *et al.* Inhibition of hERG K<sup>+</sup> currents by antimalarial drugs in stably transfected HEK293 cells. *Eur. J. Pharmacol.* **484(1)**, 41-48 (2004).
3. Abdullahi, S.T., Soyinka, J.O., Olagunju, A., *et al.* CYP2B6\*6 genotype specific differences in artemether-lumefantrine disposition in healthy volunteers. *J. Clin. Pharmacol.* **60(3)**, 351-360 (2020).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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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