

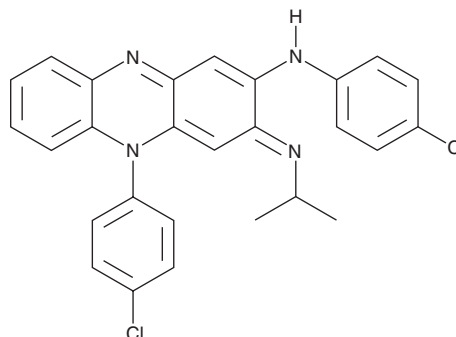
# PRODUCT INFORMATION



## Clofazimine

Item No. 23301

**CAS Registry No.:** 2030-63-9  
**Formal Name:** N,5-bis(4-chlorophenyl)-3,5-dihydro-3-[(1-methylethyl)imino]-2-phenazinamine  
**Synonym:** NSC 141046  
**MF:** C<sub>27</sub>H<sub>22</sub>Cl<sub>2</sub>N<sub>4</sub>  
**FW:** 473.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 285, 452 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

Clofazimine is supplied as a crystalline solid. A stock solution may be made by dissolving the clofazimine in the solvent of choice, which should be purged with an inert gas. Clofazimine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of clofazimine in these solvents is approximately 0.2, 1, and 2 mg/ml, respectively.

Clofazimine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, clofazimine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Clofazimine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Clofazimine is an antimycobacterial compound with MICs ranging from 0.03 to 0.12 µg/ml against clinical isolates of *M. paratuberculosis*.<sup>1</sup> It also has activity against 80 isolates of *M. fortuitum*, *M. chelonae*, and *M. fallax* (MICs = ≤0.25-8 µg/ml).<sup>2</sup> Clofazimine (25 mg/kg per day) reduces the number of *M. tuberculosis* infected cells in the spleen and lungs of mice infected with the multidrug-resistant clinical isolate strain CNL.<sup>3</sup> Formulations containing clofazimine have been used for the treatment of leprosy and drug-resistant tuberculosis.

### References

1. Chiodini, R.J. Bactericidal activities of various antimicrobial agents against human and animal isolates of *Mycobacterium paratuberculosis*. *Antimicrob. Agents Chemother.* **34**(2), 366-367 (1990).
2. Ausina, V., Condom, M.J., Mirelis, B., et al. *In vitro* activity of clofazimine against rapidly growing nonchromogenic mycobacteria. *Antimicrob. Agents Chemother.* **29**(5), 951-952 (1986).
3. Klemens, S.P., DeStefano, M.S., and Cynamon, M.H. Therapy of multidrug-resistant tuberculosis: Lessons from studies with mice. *Antimicrob. Agents Chemother.* **37**(11), 2344-2347 (1993).

#### 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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