

# PRODUCT INFORMATION



## Albofungin

Item No. 23142

**CAS Registry No.:** 37895-35-5  
**Formal Name:** (1S,4R,8aR)-13-amino-3,4,8a,13-tetrahydro-1,15,16-trihydroxy-4-methoxy-12-methyl-1H-xantheno[4',3':2':4,5][1,3]benzodioxino[7,6-g]isoquinoline-14,17(2H,9H)-dione

**Synonyms:** Antibiotic P42-1, Antibiotic P42-C

**MF:** C<sub>27</sub>H<sub>24</sub>N<sub>2</sub>O<sub>9</sub>

**FW:** 520.5

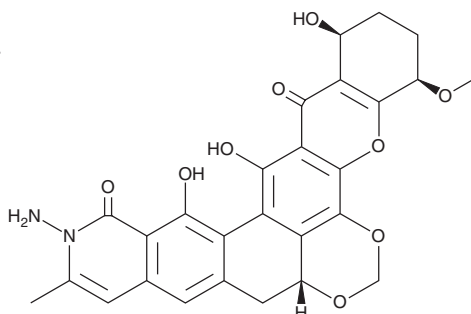
**Purity:** ≥95%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

**Item Origin:** Bacterium/*Streptomyces* sp.



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

### Laboratory Procedures

Albofungin is supplied as a solid. A stock solution may be made by dissolving the albofungin in the solvent of choice. Albofungin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

### Description

Albofungin is a xanthone isolated from *A. tumemacerans* with diverse biological activities.<sup>1,2</sup> It inhibits the growth of various Gram-positive bacteria (MICs = 0.005-7.5 µg/ml), fungi (MICs = 0.0075-1.0 µg/ml), and mycobacteria (MICs = 1.0-10.0 µg/ml) with minimal activity against Gram-negative bacteria (MICs = ≥ 50.0 µg/ml).<sup>2,3</sup> At concentrations ranging from 0.005 to 0.01 µg/ml, albofungin is cytotoxic to HeLa cells.<sup>2</sup> It also inhibits HIV reverse transcriptase with an IC<sub>50</sub> value of 1 µM.<sup>4</sup>

### References

1. Gurevich, A.I., Karapetyan, M.G., Kiseleva, O.A., *et al.* The chemistry of albofungin. The antibiotics albofungin and chloralbofungin. *Antibiotiki* **17(9)**, 771-774 (1972).
2. Fukushima, K., Ishiwata, K., Kuroda, S., *et al.* Identity of antibiotic P-42-1 elaborated by *Actinomyces tumemacerans* with kanchanomycin and albofungin. *J. Antibiot. (Tokyo)* **26(2)**, 65-69 (1973).
3. Bunyapaiboonsri, T., Lapanun, S., Supothina, S., *et al.* Polycyclic tetrahydroxanthones from *Streptomyces chrestomyceticus* BCC 24770. *Tetrahedron* **72(5)**, 775-778 (2015).
4. Trenin, A.S., and Dudnik, Y.V. Solid phase system of template RNA-directed DNA-polymerase in the screening of new antibiotics as potential HIV inhibitors. *Antibiot. Khimioter.* **50(10-11)**, 4-12 (2005).

#### 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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