

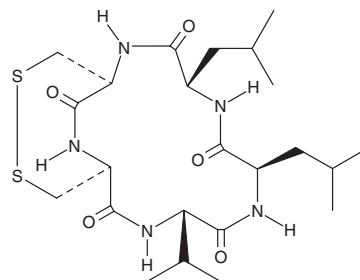
PRODUCT INFORMATION



Malformin C

Item No. 21613

CAS Registry No.: 59926-78-2
Formal Name: cyclo(D-cysteiny-D-cysteiny-L-valyl-D-leucyl-L-leucyl), cyclic (1→2)-disulfide
Synonym: Malformin B_{1b}
MF: C₂₃H₃₉N₅O₅S₂
FW: 529.7
Purity: ≥95%
Supplied as: A solid
Storage: Room temperature
Stability: ≥2 years
Item Origin: Synthetic



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

Laboratory Procedures

Malformin C is supplied as a solid. A stock solution may be made by dissolving the malformin C in the solvent of choice. Malformin C is soluble in organic solvents such as ethanol, methanol, chloroform, and DMSO, which should be purged with an inert gas.

Description

Malformin C is a natural fungus-derived bicyclic pentapeptide that has antibacterial properties, particularly against species of *Bacillus*.¹ Malformin C potently blocks the ability of bleomycin (Item No. 13877) to induce G₂ arrest in human T cell leukemia-derived Jurkat cells (IC₅₀ = 0.9 nM).² It less potently abrogates colchicine-induced M phase arrest in Jurkat cells (IC₅₀ = 24 nM).² Malformin C inhibits cell growth dose-dependently in Colon 38 and HCT 115 cancer cells (IC₅₀s = 0.27 and 0.18 μM, respectively) but has a low therapeutic index against cancer xenografts when tested in mice.³

References

1. Kobbé, B., Cushman, M., Wogan, G.N., *et al.* Production and antibacterial activity of malforming C, a toxic metabolite of *Aspergillus niger*. *Appl. Environ. Microbiol.* **33(4)**, 996-997 (1977).
2. Hagimori, K., Fukuda, T., Hasegawa, Y., *et al.* Fungal malformins inhibit bleomycin-induced G₂ checkpoint in Jurkat cells. *Biol. Pharm. Bull.* **30(8)**, 1379-1383 (2007).
3. Wang, J., Jiang, Z., Lam, W., *et al.* Study of malformin C, a fungal source cyclic pentapeptide, as an anti-cancer drug. *PLoS One* **10(11)**, e0140069 (2015).

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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