

PRODUCT INFORMATION



Phleomycin

Item No. 15549

CAS Registry No.: 11006-33-0
Formal Name: (2R,3S,4S,5R,6R)-2-(((2R,3S,4S,5S,6S)-2-(2-(6-amino-2-(3-amino-1-((2,3-diamino-3-oxopropyl)amino)-3-oxopropyl)-5-methylpyrimidine-4-carboxamido)-3-((5-((1-((2-(4-((4-guanidinobutyl)carbamoyl)-4',5'-dihydro-[2,4'-bithiazol]-2'-yl)ethyl)amino)-3-hydroxy-1-oxobutan-2-yl)amino)-3-hydroxy-4-methyl-5-oxopentan-2-yl)amino)-1-(1H-imidazol-4-yl)-3-oxopropoxy)-4,5-dihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-3-yl)oxy)-3,5-dihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-4-yl carbamate, copper(II) salt, monohydrochloride

MF: C₅₅H₈₄N₂₀O₂₁S₂Cu • HCl

FW: 1,525.5

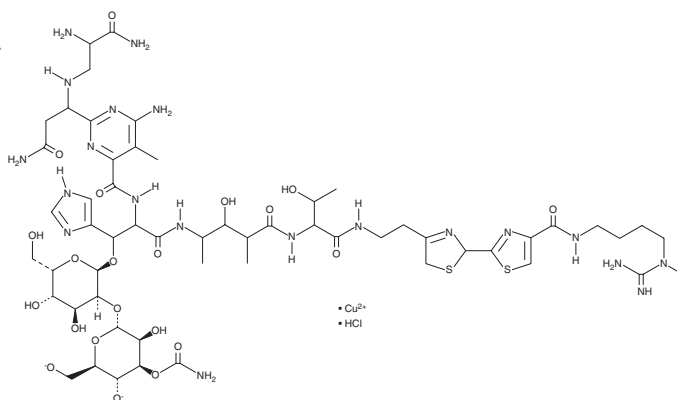
Purity: ≥95%

UV/Vis.: λ_{max}: 242, 300 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

Phleomycin is supplied as a crystalline solid. Aqueous solutions of phleomycin may be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of phleomycin in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Phleomycin is a glycopeptide antibiotic from *Streptomyces* whose cytotoxic action results from its ability to cause DNA fragmentation.^{1,2} The ability of phleomycin to block mammalian cells from entering mitosis has made it useful in cancer therapy, most commonly in conjunction with other therapeutic modalities.²⁻⁴ Phleomycin is also used, in conjunction with a vector carrying the bleomycin resistance protein ble, as a selective agent in the transformation of yeast, plant cells, and mammalian cells.⁵⁻⁷

References

1. Moore, C.W. *Cancer Res.* **48(23)**, 6837-6843 (1988).
2. Hecht, S.M. *J. Nat. Prod.* **63(1)**, 158-168 (2000).
3. Kajiwara, K., Kim, U.H., and Mueller, G.C. *Cancer Res.* **26(2)**, 233-236 (1966).
4. Allen, T.E., Brown, D.J., Cowden, W.B., et al. *J. Antibiot. (Tokyo)* **37(4)**, 376-383 (1984).
5. Gagnon, A., Baron, M., and Tiraby, G. *Mol. Gen. Genet.* **207(2-3)**, 342-348 (1987).
6. Wenzel, T.J., Migliazza, A., Steensma, H.Y., et al. *Yeast* **8(8)**, 667-668 (1992).
7. Vickers, C.E., Bydder, S.F., and Nielsen, L.K. *Microb. Cell Fact.* **12**, 96 (2013).

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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