

PRODUCT INFORMATION

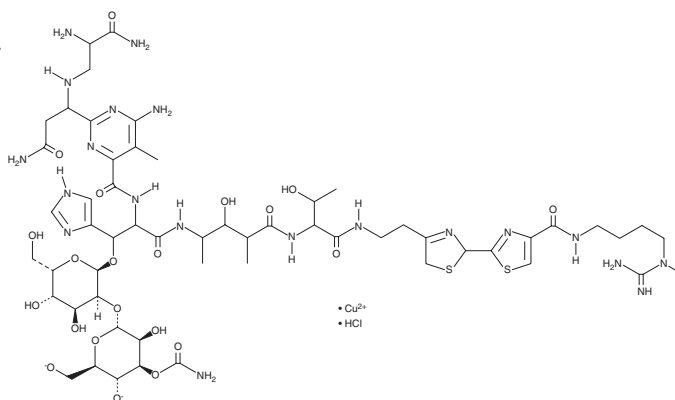


Phleomycin

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
Synonym: PLM-D1

MF: C₅₅H₈₄N₂₀O₂₁S₂Cu • HCl
FW: 1,525.5
Purity: ≥95% (a mixture of phleomycins)
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 that has been found in *S. verticillus* and has diverse biological activities.¹⁻⁵ It induces chromosomal breaks in *S. cerevisiae* when used at concentrations ranging from 1 to 2 μM.¹ Phleomycin (5 or 10 μg/ml) reduces proliferation, DNA synthesis, and the percentage of cells entering mitosis in HeLa cervical cancer cells.² *In vivo*, phleomycin (1 mg/kg per day), in combination with the purine analog LS34, increases survival time in an Ehrlich mouse ascites tumor model.³ It has been used as an antibiotic selection agent for successfully transformed cells in genetic engineering experiments.^{4,5}

References

1. Moore, C.W. *Cancer Res.* **48(23)**, 6837-6843 (1988).
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).
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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