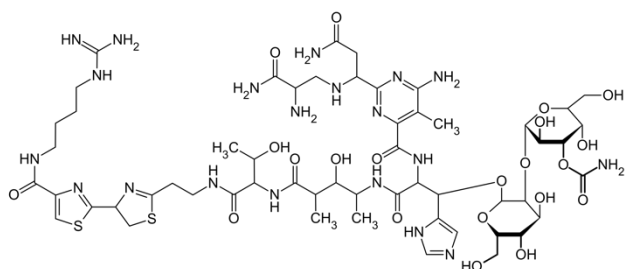


Phleomycin 20mg/mL

Antibiotics

CATALOG NUMBER: MA021

DESCRIPTION:



Phleomycin is an antibiotic and antitumor agent commonly used in molecular biology and life science research. It is known for its ability to cleave DNA, making it useful for studies involving DNA damage and repair mechanisms.

Phleomycin resistance is conferred by the *Sh ble* gene from *Streptoalloteichus hindustanus* which encodes a protein that binds to phleomycin, inhibiting its DNA cleavage activity.

Phleomycin 20mg/mL solution is a formulation often employed in molecular biology experiments to induce controlled DNA damage in cells. Phleomycin accomplishes this by causing single- and double-strand breaks in DNA, making it a valuable tool for investigating cellular responses to DNA damage and the mechanisms involved in DNA repair.

APPLICATION:

Phleomycin was used to study the impact of DNA damage on cellular processes, gene expression, and other aspects of molecular biology.

CAS NUMBER: 11006-33-0

MOLECULAR WEIGHT: 1526.5

STRUCTURE: C₅₅H₈₅O₂₁N₂₀S₂Cu • HCl

PACKING SIZE: 1mL

CONCENTRATION: 20mg/mL (20mM HEPES, pH7.3)

WORKING CONCENTRATION: Phleomycin is used at a concentration of 10µg/mL for yeasts and 25-150µg/mL for filamentous fungi.

STERILITY: 0.22µm filtered

STORAGE & STABILITY: 2-8°C for 1 month; -20°C for long term storage.

REFERENCES:

1. Maeda, Kenji; Kosaka, Hiroko; Yagishita, Koki; Umezawa, Hamao (1956). A new antibiotic, phleomycin. *Journal of Antibiotics*. **9** (2): 82-85.

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