Product Information

**Ampicillin**
**Ready Made Solution**

Catalog Number **A5354**
Storage Temperature –20 °C

CAS RN 69-52-3
Synonym: D-(−)-α-aminobenzylpenicillin

**Product Description**

![Molecular Structure of Ampicillin](image_url)

Molecular Formula: C_{16}H_{18}N_{3}NaO_{4}S
Molecular Weight: 371.39

Ampicillin is a β-lactam antibiotic with an amino group side chain attached to the penicillin structure. Ampicillin, which is a semi-synthetic derivative of penicillin, inhibits cell wall synthesis (peptidoglycan crosslinking) by inactivating transpeptidases on the inner surface of the bacterial cell membrane in Gram-negative and Gram-positive bacteria.\(^2,3\) Cleavage of the β-lactam ring of ampicillin by β-lactamase results in bacterial resistance to this antibiotic.\(^2,4\)

Ampicillin Ready Made Solution is a 0.2 µm filtered solution of 100 mg/ml of ampicillin, which remains liquid at its storage temperature (~20 °C).

**Precautions and Disclaimer**
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

**Storage/ Stability**
The product ships on dry ice and storage at –20 °C is recommended.

**Procedure**
The product can be added to an agar or culture medium, which has been autoclaved and cooled to 45–50 °C. Culture plates with ampicillin can be stored at 2–8 °C for up to two weeks.

The recommended concentration for antibacterial use in culture media is ~100 µg/ml (a 1000-fold dilution of the product).

The recommended concentration for use in ampicillin-resistance studies is 20–125 µg/ml.\(^4\)

**References**

EM, EO, MAM 07/08-1

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