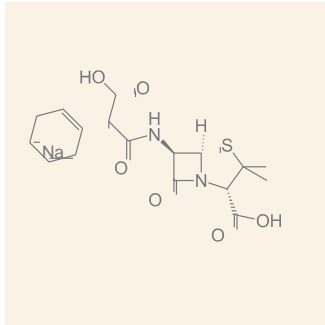


Carbenicillin, Disodium Salt

Molecular structure



Product Description

Carbenicillin is recommended as a substitute for ampicillin at the same concentration in molecular biology applications. Both ampicillin and carbenicillin are semi-synthetic penicillins related to penicillin. Carbenicillin is penicillin with a carboxyl and benzyl group, whereas ampicillin is an aminopenicillin. Carbenicillin inhibits cell wall synthesis in peptidoglycan crosslinking because it is a member of the penicillin family of antibiotics.

Carbenicillin demonstrates improved stability over ampicillin when used in growth media. It is more resistant to heat and low pH-induced degradation over time making it particularly useful for large-scale liquid culture growth. It also reduces the presence of satellite colonies seen with ampicillin.

Satellite colonies are very small colonies visible on the plate that will grow very close to the larger colonies to survive. These cells are not resistant themselves, so they must grow near the antibiotic-resistant colonies that are destroying the antibiotic in their immediate vicinity.

Satellite colonies develop with antibiotics such as ampicillin because β -lactamases destroy the antibiotic outside of the cell. Satellites are more likely to develop if the ampicillin plate is old, resulting in partial degradation of the antibiotic. Carbenicillin, being more stable than ampicillin and less labile to β -lactamase activity, reduces the presence of satellites.

Product Specification

| | |
|-------------------------------|---|
| Molecular weight: | 422.4 g/mol |
| Formula: | C ₁₇ H ₁₈ N ₂ O ₆ Na ₂ |
| Synonyms: | alpha-Carboxybenzylpenicillin disodium salt |
| Storage and Stability: | 2°C to -8°C |

Ordering information

| Cat. No. | Description | Unit Size | Qty/Pk |
|-----------|-------------------------------------|-----------|--------|
| 46-100-RG | Carbenicillin Disodium salt, powder | 5 g | 1 |

For Research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or in vitro procedures.

Support

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