Carbenicillin (disodium salt)

#GAB06.0005

(for research only)

Product: Carbenicillin, like ampicillin, is an antibiotic of the ß-lactam class and acts in an identical way as ampicillin, with the advantage that it is more stable. It is a bactericidal agent that acts by inhibition of transpeptidase, which is required for cell wall synthesis, and as such functions as a broad-spectrum antibiotic, effective against Gram(+) and Gram(-) bacteria. This semi-synthetic derivate from Penicillin, like Penicillin, can be inactivated by ß-lactamase, which hydrolyzes the ß-lactam ring. Therefore, carbenicillin is frequently used for the selection of bacteria transformed with a vector harbouring the gene encoding ß-lactamase (*bla*), which turns them resistant, from untransformed cells.

Quantity: 5g

Appearance: White, slightly beige powder.

Storage: 2ºC – 8ºC for at least 1 years, at -20ºC at least 3 years

Preparation: Prepare a stock solution of 4-50mg/ml in ultrapure water or 50% ethanol, and filter sterilize. Do not autoclave. Store stock solution at +4ºC for several weeks or at -20ºC for up to 6 months.

Usage: Carbenicillin is used in the same way as ampicillin. In comparison with ampicillin, Carbenicillin is more stable. In culture media, it is more resistant to heat and low-pH induced degradation over time, making it a very useful antibiotic for large-scale liquid culture growth. Moreover, growth of satellite colonies on agar plates is less likely to occur. For incorporation in agar plates, add carbenicillin to a final concentration of 20-100µg/ml (depending on, among other factors, type of vector (low-copy vs high-copy number plasmid)) by adding to autoclaved media agar, just prior to pouring the plates, or to broth after cooling down to room temperature.

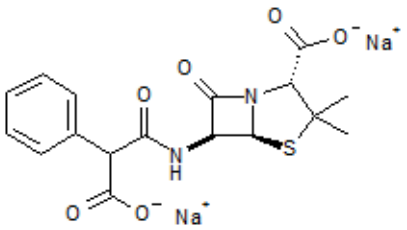
Specifications:

Formula: $C_{17}H_{16}N_2O_6SNa_2$

MW: 422,4 g/mol

Purity: >90% (on dry basis)

Solubility (H_2O): 50mg/ml



ORDERING INFORMATION – Molecular Cloning – Common Reagents

Reference #	Product Name	Quantity
GAB01.0005	IPTG (max 5 ppm dioxane)	5 g
GAB02.0005	X-Gal	5 g
GAB03.0005	Ampicillin (sodium salt)	5 g
GAB04.0005	Kanamycin (sulphate)	5 g
GAB05.0005	Chloramphenicol	5 g
GAB06.0005	Carbenicillin (disodium salt)	5 g
GAB07.0005	Tetracycline (hydrochloride)	5 g
GAB08.0005	Gentamycin powder	5 g

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