



# Ampicillin, Sodium Salt

## Product description

Ampicillin is a  $\beta$ -lactam antibiotic within the penicillin family. As a member of this family, Ampicillin is susceptible to  $\beta$ -lactamase, which hydrolyzes the  $\beta$ -lactam ring. This broad-spectrum antibiotic is effective against gram-positive, gram-negative bacteria, and anaerobic bacteria. As an antibiotic, Ampicillin binds to penicillin-binding proteins (PBPs), acting as a structural analog of acyl-D-alanyl-D-alanine, acylating the transpeptidase enzyme, and thereby preventing the cross-linking of the peptidoglycan of the cell wall necessary for the growth of the bacterium. Ampicillin in the form of sodium salt from Yeasen, as a selective agent in E.coli culture, is widely used to prepare LB medium.

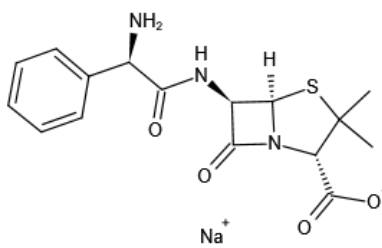
As a selective agent in E.coli culture, Ampicillin is widely used to prepare LB medium. The minimum inhibitory concentration (MIC) of ampicillin against Gram-negative bacteria and Gram-positive bacteria were 0.03-3  $\mu\text{g/mL}$  and 0.02-1.5  $\mu\text{g/mL}$ , respectively. Agar or culture medium for autoclave should be cooled to 45-50°C before adding ampicillin solution. A culture medium containing ampicillin can be stored at 2-8°C for 2 weeks, and on 37°C for approximately 3 days.

This product is ampicillin sodium salt. The recommended concentration for cell screening is 50-100  $\mu\text{g/mL}$ .

## Components

Components No.	Name	60203ES10	60203ES60
60203	Ampicillin, Sodium Salt	10 g	100 g

## Specifications

Synonyms	D-(-)- $\alpha$ -Aminobenzylpenicillin sodium salt, Amblosin, Plumericin, Viacilina-A
CAS#	69-52-3
Formula	$\text{C}_{16}\text{H}_{18}\text{N}_3\text{NaO}_4\text{S}$
Molecular Weight	371.39
Appearance	White to off-white powder
Potency (Anhydrous)	845-988 mcg/mg
Solubility	Soluble in water: $\geq 50 \text{ mg/mL}$
Structure	



## Shipping and Storage

The product is shipped with ice packs and can be stored at 2°C ~ 8°C for three years.

## Notes

1. Please wear the necessary PPE, such lab coat and gloves, to ensure your health and safety.
2. For research use only.