

Ampicillin, Sodium Salt

Product Information

Product Name	Cat#	Size
Ampicillin, Sodium Salt	60203ES10	10 g
	60203ES60	100 g

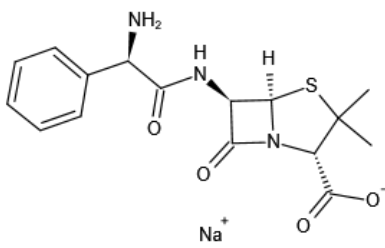
Product Description

Ampicillin is a β -lactam antibiotic within the penicillin family. As a member of this family, Ampicillin is susceptible to β -lactamase, which hydrolyzes the β -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 analogue of acyl-D-alanyl-D-alanine, acylating the transpeptidase enzyme, and thereby prevents the cross-linking of the peptidoglycan of the cell wall necessary for the growth of the bacterium.

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. Culture medium containing ampicillin can be stored at 2-8°C for 2 weeks, at 37°C for approximately 3 days.

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

Product Properties

Synonyms	D-(-)- α -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 pack and can be stored at 2-8°C in a dry and well-ventilated place for 3 years.

Cautions

1. The solution should not be autoclaved.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.