

## Ampicillin (Sodium salt)

Cat. 6800

For E.coli in molecular genetics studies

### Practical information

Applications	Categories
Selection of transformants	Escherichia coli
Preparation and recovery of competent cells	Escherichia coli

Industry: Ingredients for culture media / Molecular biology

### Principles and uses

Ampicillin (Sodium salt) is used with LB Media for the isolation of bacteria modified with a plasmid that includes an ampicillin resistance gene. Ampicillin inhibits cell-wall synthesis by interfering with peptidoglycan cross-linking.

### Formula per vial

Ampicillin (Sodium Salt) (g)	5
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### Preparation

Add ampicillin (sodium salt) powder or a sterile ampicillin (sodium salt) solution to LB medium (Cat. 1551, Cat. 1552, Cat. 1266, Cat. 1308, Cat. 1231, Cat. 1083) to get the desired final concentration ( $\mu\text{g/mL}$ ), autoclaved and cooled to  $50^\circ\text{C}$ . Mix well and distribute into sterile containers.

### Instructions for use

The stock solution can be prepared with water, in a concentration of  $50\text{ mg/ml}$  and should be stored at  $-20^\circ\text{C}$ . The working concentrations are  $20\text{ }\mu\text{g/ml}$  for stringent plasmids and a concentration of  $50\text{ }\mu\text{g/ml}$  for relaxed plasmids.

### Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
N/A	Powder	White or almost white	N/A	8,0-10,0

### Physical-chemical characteristics

Description	Specification
Appearance	White or almost white powder
Identification	A,D or B,C,D positive reaction
Specific optical rotation	$<0,15$
Dimero	$<4,5\%$
Water	$<2\%$
Bacterial endotoxins	$<0,15\text{ EU/mg}$
Sterility	Conforms
Assay (C16H9N3O4S)	$91,0\%-102,0\%$
Heavy metals	$<20\text{ ppm}$
Methylene chloride	$<0,20\%$

## Storage

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Temp. Min.:2 °C  
Temp. Max.:8 °C

## Bibliography

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Ryan N. (1985) Personal communication.

Rogol M., Sechter I., Grinberg L., Gerichter Ch. B. (1992) J. Med. Microbiol. 12. 229-231.

Atlas, R.M., L.C.Parks (1993) Handbook of Microbiological Media. CRC Press, Inc. London

The condensed protocols from molecular cloning: a laboratory manual/ Joseph Sambrook, David W .Russell