

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: 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 ($\mu\text{g}/\text{mL}$), autoclaved and cooled to 50°C . Mix well and distribute into sterile containers.

Instructions for use

The stock solution can be prepared with water, in a concentration of $50\text{ mg}/\text{ml}$ and should be stored at -20°C . The working concentrations are $20\text{ }\mu\text{g}/\text{ml}$ for stringent plasmids and a concentration of $50\text{ }\mu\text{g}/\text{ml}$ 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	$<0,15\text{ EU}/\text{mg}$
Sterility	Conforms
Assay (C16H9N3O4S)	$91,0\%-102,0\%$
Heavy metals	$<20\text{ ppm}$
Methylene chloride	$<0,20\%$

Storage

Temp. Min.:2 °C
Temp. Max.:8 °C

Bibliography

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