

Gentamicin

Cat. 6805

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: Culture media ingredients / Culture media for Molecular biology

Principles and uses

Gentamicin is used with LB Media for the isolation of bacteria modified with a plasmid that includes a chloramphenicol resistance gene.

Gentamycin inhibits protein synthesis by binding to L6 protein of the 50S ribosomal subunit.

Formula per vial

Gentamicin (g)	5
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Typical formula g/L * Adjusted and/or supplemented as required to meet performance criteria.

Preparation

Add gentamicin powder or a sterile gentamicin 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°C . Mix well and distribute into sterile containers.

Instructions for use

The Stock solution can be prepared with water, in a concentration of 10-50 mg/ml and should be stored at -20°C .

The working concentrations is 5 $\mu\text{g/ml}$ for stringent plasmids and a concentration of 20 $\mu\text{g/ml}$ 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	3,5-5,5

Physical-chemical characteristics

Description	Specification
Loss on drying	<18%
pH	3,5-5,5
Identification	Positive
Specific optical rotation	+107° to 121°
Residue after ignition	<1%
Limit of Methanol	<1%
Content of gentamicins:	C1+C2b : 25% to 50% / C1a : 10% to 35% / C2+C2a: 25% to 55%
Assay (anhydrous basis)	>590 $\mu\text{g/mg}$

Storage

Temp. Min.:0 °C

Temp. Max.:5 °C

Bibliography

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