One Shot™ LB Agar Plates with 100 µg/mL Ampicillin

Catalog Number A55802

Pub. No. MAN0029965 Rev. A.0

WARNING! Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from thermofisher.com/support.

Product description

One Shot™ LB Agar Plates are pre-poured plates containing Luria-Bertani (LB) agar medium with 100 µg/mL ampicillin. LB agar is a solid bacterial growth medium used in molecular biology studies for the cultivation and maintenance of *Escherichia coli* strains. Added antibiotic allows selection of ampicillin resistant bacteria.

- Composition of the medium is based on formulation developed by Jeffrey H. Miller and contains twice as much sodium chloride as in the Lennox formulation [1].
- LB agar is a nutrient-rich medium containing casein peptone, yeast extract, sodium chloride, and agar. Casein peptone or tryptone is an enzymatic hydrolysate of casein. It supplies nitrogen, carbon, and amino acids. Yeast extract provides trace elements, vitamins (including B group vitamins), amino acids, and peptides. Sodium chloride supplies sodium cations for the membrane transport and maintains osmotic balance. Agar is a solidifying agent of the growth medium.
- Autoclaved glass plating beads are provided for convenient spreading of bacterial cells across the surface of the solid LB agar medium.

Contents

Catalog number	Amount
A55802	20 plates

The product is shipped as a box containing 20 pre-poured LB agar plates with antibiotic. Plates are divided into two stacks wrapped in a single layer of cellophane, containing 10 plates per stack. Each plate is 90 mm in diameter, contains 21 ± 2 mL of LB agar medium.

A 15 mL conical tube with autoclaved 4 mm glass plating beads is included in the box.

Storage and stability

Store at 2–14°C in the original packaging (cellophane wrapping and box). Protect from the light. Avoid freezing and overheating.

Note: Always store agar plates upside down.

Pre-poured LB agar plates are stable for three months when stored as directed.

Composition

Component	Concentration, g/L
Casein peptone	10.00
Yeast extract	5.00
Sodium chloride	10.00
Ampicillin	0.1
Agar	15.00

Procedure

Innoculate culture plate

Follow procedures established in the laboratory for bacterial culture preparation, inoculation and incubation. For more information, refer to relevant sources.

- Prior to inoculation, it is recommended to prewarm agar plates at 37°C in the incubator for 30 minutes. This step will help to dry out excessive moisture from the surface of the medium and provides better recovery of stressed bacterial cells.
- In case of built-up condensation, dry plates in the laminar flow hood with half-opened lids for 10–30 minutes.

How to use glass plating beads

Pipet bacterial cells onto the agar plate, then add 5–7 beads and vigorously move the plate back and forth. Make a couple of 360° rotations with 90° stops, until the surface of the medium seems dry. Discard the beads into the waste container by flipping the plate upside down.

Quality control

Physical and chemical quality control

- Color: Straw yellow
- Final pH: 7.0 ± 0.2 at 25°C

Microbiological control

- Inoculum level for productivity testing: a practicable range of 100±20 CFU of the target microorganism per plate with minimum number of 50 CFU per plate.
- Inoculum level for selectivity testing: a range of 10^4–10^6 CFU of the non-target microorganism per plate.
- Aerobic incubation at 37±1°C. Reading, calculation and interpretation of results after 18–24 hours.

Microorganism	Result
Escherichia coli ATCC® 25922, WDCM 00013	Inhibited
Escherichia coli ATCC® 8739, WDCM 00012	Inhibited
Escherichia coli DH5α containing pUC19	Good growth (productivity ≥50%)

Test for absence of microbial contamination on plates

Testing is performed by incubation at 20–25°C and 30–35°C for 48 hours followed by visual inspection. Subsequent incubation under the same conditions for another seven days with following inspection.

Result: No growth.

References

[1] Miller, J.H. (1972) *Experiments in Molecular Genetics*. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York.

Related products

The following products are available through **thermofisher.com**.

Catalog numbers that appear as links open the web pages for those products.

Product	Quantity	Catalog no.
TOPO™ TA Cloning™ Kit for Subcloning, without competent cells	25 reactions	450641
TOPO™ TA Cloning™ Kit for Sequencing, without competent cells	25 reactions	450030
Zero Blunt™ PCR Cloning Kit, without competent cells	25 reactions	450245
Zero Blunt™ TOPO™ PCR Cloning Kit for Sequencing, without competent cells	25 reactions	450031
Gateway™ LR Clonase™ II Enzyme Mix	20 reactions	11791020
Gateway™ BP Clonase™ Enzyme Mix	20 reactions	11789013
pENTR™/D-TOPO™ Cloning Kit, with One Shot™ Mach1™ T1 Phage-Resistant Chemically Competent *E. coli*	20 reactions	K240020
pENTR™/D-TOPO™ Cloning Kit	20 reactions	K240020SP
GeneArt™ Gibson Assembly® HiFi Master Mix	50 reactions	A46628
GeneArt™ Gibson Assembly® EX Master Mix	50 reactions	A46636
One Shot™ TOP10 Chemically Competent *E. coli*	21 × 50 µL/tube	C404003
One Shot™ Stbl3™ Chemically Competent *E. coli*	21 × 50 µL/tube	C737303
MegaX DH10B™ $T1^R$ Electrocomp™ Cells	5 × 100 µL	C640003
ElectroMAX™ Stbl4™ Competent Cells	5 × 100 µL	11635018
Ampicillin, sodium salt, irradiated	200 mg	11593027
Kanamycin Sulfate	5 g	11815024
X-Gal	1 g	15520018
IPTG	1 g	15529019
Bluo-Gal, substrate for β-galactosidase	1 g	15519028
S.O.C. Medium	10 × 10 mL	15544034
LB Broth	500 mL	10855021
LB Agar, powder (Lennox L agar)	500 g	22700025
LB Broth Base	500 g	12780052
One Shot™ LB Agar Plates	20 plates	A55800
One Shot™ LB Agar Plates with 50 µg/mL Kanamycin	20 plates	A55803

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale at **www.thermofisher.com/us/en/home/global/terms-and-conditions.html**. If you have any questions, please contact Life Technologies at **www.thermofisher.com/support**.

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For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

Revision history: Pub. No. MAN0029965 A.0

Revision	Date	Description
A.0	7 March 2024	Initial product insert release for One Shot™ LB Agar Plates with Ampicillin.